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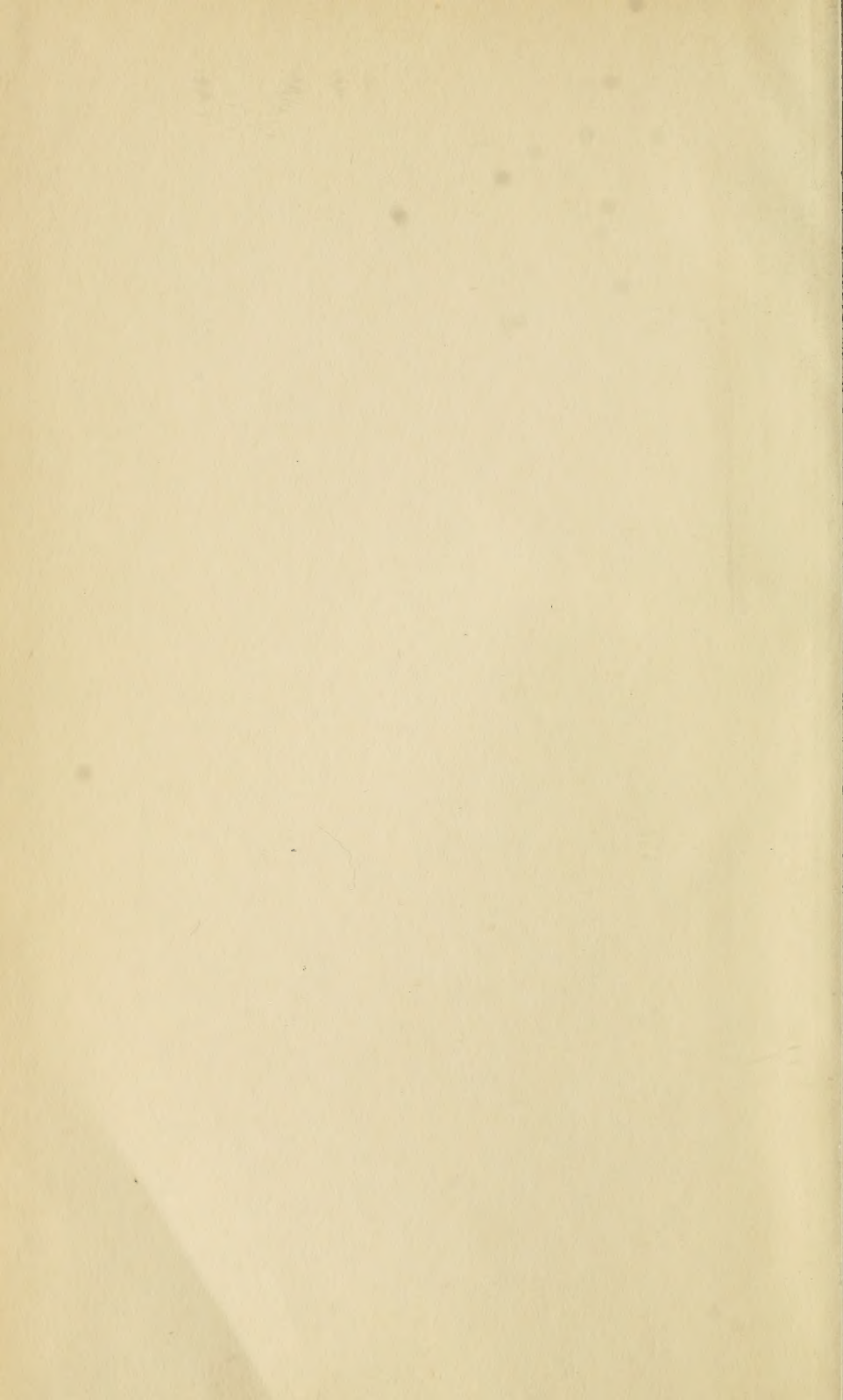


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APPENDIX TO THE JOURNALS

OF THE

SENATE AND ASSEMBLY

OF THE

THIRTY-SECOND SESSION

OF THE

LEGISLATURE OF THE STATE OF CALIFORNIA.

VOLUME VI.



SACRAMENTO:

A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.

1897.

APPENDIX TO THE JOURNAL

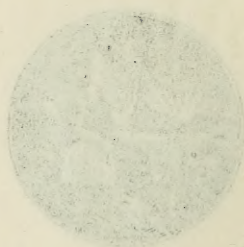
SENATE AND ASSEMBLY

THIRTY-SECOND SESSION

LEGISLATURE OF THE STATE OF CALIFORNIA

1891

VOLUME VI



SACRAMENTO

W. J. BAKER, STATE PRINTER

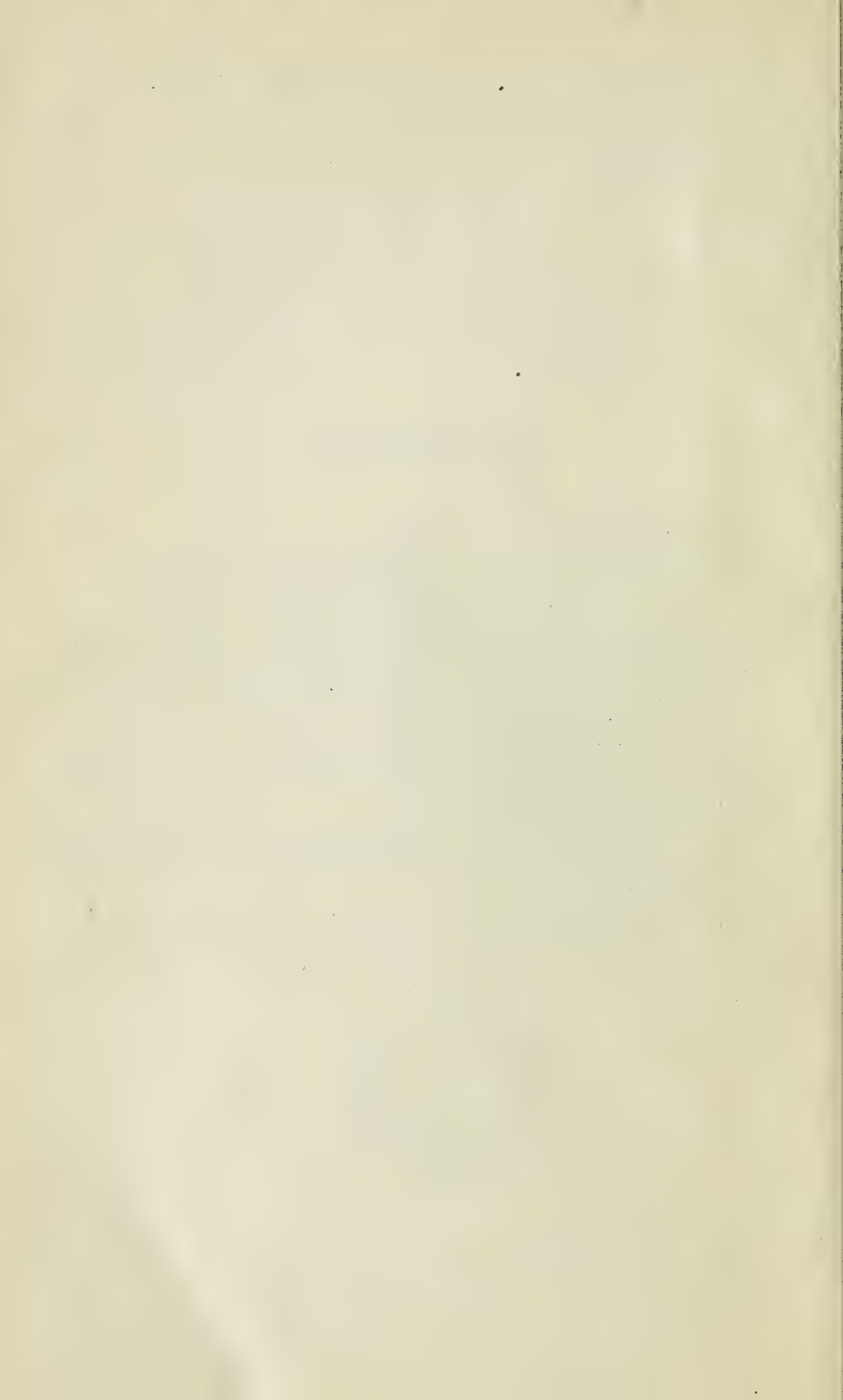
1891

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FOURTEENTH BIENNIAL REPORT
OF THE
STATE BOARD OF HEALTH
OF
CALIFORNIA,

FOR THE FISCAL YEARS FROM JUNE 30, 1894, TO JUNE 30, 1896.

ALSO,

THE TRANSACTIONS OF THE FOURTH ANNUAL SANITARY CONVENTION
HELD AT LOS ANGELES, APRIL 20, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.
1896.

MEMBERS OF THE CALIFORNIA STATE BOARD OF HEALTH.

W. F. WIARD, M.D., <i>President</i>	Sacramento.
WINSLOW ANDERSON, M.D., <i>Vice-President</i>	San Francisco.
J. R. LAINE, M.D., <i>Secretary</i>	Sacramento.
J. H. DAVISSON, M.D.....	Los Angeles.
C. A. RUGGLES, M.D.....	Stockton.
P. C. REMONDINO, M.D.....	San Diego.
C. W. NUTTING, M.D.....	Etna Mills.

OFFICE CALIFORNIA STATE BOARD OF HEALTH, }
SACRAMENTO, August 15, 1896. }

To his Excellency JAMES H. BUDD, *Governor of California:*

SIR: I have the honor to present to you, in compliance with the laws of the State, the Fourteenth Biennial Report of the State Board of Health, for the fiscal year from June 30, 1894, to June 30, 1895, and from June 30, 1895, to June 30, 1896. Also, the proceedings of and papers read at the Fourth Annual Sanitary Convention, held April 20, 1896, at Los Angeles, Cal.

Very respectfully, your obedient servant,

J. R. LAINE,
Secretary State Board of Health.



GENERAL REPORT OF THE BOARD.

To his Excellency JAMES H. BUDD, Governor of California:

SIR: We have the honor to submit herewith the Fourteenth Biennial Report of the State Board of Health; also, the transactions of the Fourth Annual Sanitary Convention, held at Los Angeles, April 20th, 1896.

SANITARY INSPECTOR.

It became necessary, in the summer of 1895, to place a Sanitary Inspector on the desert near Yuma, Ariz., to protect the State against smallpox that raged on the territorial border adjoining Mexico.

PERMANENT QUARANTINE STATION.

It was deemed advisable to establish a permanent quarantine station agreeably to repeated recommendations of former Boards of Health. A quarter-section of land was purchased near Cabazon Station, on the Southern Pacific Railroad, 30 miles west of Indio. A spur track was constructed and a water pipe-line laid to the track. No buildings have been constructed, as it is deemed best to build sheds when necessary, and then to destroy them by fire. The cost of the land and the spur track and pipe-line, with purchase of water and care of track and line, for one year, is \$3,010.

DIPHTHERIA ANTITOXINE.

During the last session of the Legislature this Board asked for an appropriation of \$6,000 for the purchase and manufacture of diphtheria antitoxine for free distribution in the State.

This request met with your approval, and was urged in the House by Dr. James H. Glass, and in the Senate by Dr. A. J. Pedlar, and passed both houses and received your signature and became a law.

On behalf of many parents who have their children living and well, that without the beneficent effects of antitoxine would be dead, we desire to thank you and the honorable Legislature for the wisdom of their action. A report of the very moderate expense will be found in the financial report of the Secretary, while to those interested in such matters the marked decrease in mortality from diphtheria and croup since the quite general use of antitoxine will be shown by a comparison of the last two with former years.

MARITIME QUARANTINE.

During the prevalence of cholera in the Hawaiian Islands in 1895, we requested the General Government to assume control of all maritime quarantine matters on the Pacific Coast, so as to obtain uniformity of administration.

Maritime quarantine, to be effective, should imply authoritative supervision at ports of departure, of ships, cargo, food, water, passengers, and

where cargo and passengers come from; and their care while on the voyage, and their condition on arrival at port of destination. It must be seen that maritime quarantine is not a local matter, inasmuch as it involves principles of government the very opposite of local.

It must be understood that if extreme care be taken at foreign ports the danger of ships landing contagious diseases will be correspondingly lessened. No local Board of Health can exercise authority outside of its jurisdiction, while the General Government may exercise its powers by placing medical inspectors and consular agents at all infected ports, and may deny a landing to any vessel that refuses to submit to its rules and regulations at such ports of departure. The wisdom and justice of such action must be apparent, and no minor consideration should be permitted to intervene. Such general supervision need not and should not contemplate any infringement on the duties of local municipal authority. It should supplement it and extend beyond it.

PUBLIC INSTITUTIONS.

The minutes of the Board will show that a careful and rigid inspection has been made of the sanitary condition of the institutions of the State.

VITAL STATISTICS.

The following counties have reported, through their Clerks and Recorders, the deaths, births, and marriages reported to them: Alpine, Butte, Calaveras, Contra Costa, Del Norte, Fresno, Humboldt, Lake, Los Angeles, Madera, Mariposa, Modoc, Napa, Nevada, Orange, San Bernardino, San Diego, San Francisco, San Joaquin, Santa Barbara, Santa Clara, Shasta, Sierra, Sutter, and Yuba.

The counties which have not reported are Alameda, Amador, Colusa, El Dorado, Glenn, Inyo, Kern, Kings, Lassen, Marin, Mendocino, Merced, Mono, Monterey, Placer, Plumas, Riverside, Sacramento, San Benito, San Luis Obispo, San Mateo, Santa Cruz, Siskiyou, Solano, Sonoma, Stanislaus, Tehama, Trinity, Tulare, Tuolumne, Ventura, and Yolo.

Thus it will be seen that twenty-five counties have reported, while thirty-two have not.

The Recorders of the delinquent counties are liable to a fine of \$50, for each quarterly neglect, but this Board has no authority to convince the District Attorneys that they should proceed against them.

In view of the difficulty so far experienced in collecting vital statistics, we would recommend the creation, by the Legislature, of the office of "Registrar of Vital Statistics," to be appointed by the State Board of Health. He should keep a full and complete record of all births, deaths, and marriages in the State, placing all data under separate heads, and make up tables of such statistics for publication in the biennial reports. Such records will be very valuable in the future.

The salary should be \$1,800 per annum.

MARRIAGES AND BIRTHS.

No tables of marriages and births are attempted in this report, inasmuch as they would be fragmentary and incomplete, and, moreover, misleading.

This will not apply to the mortality report, for, while reports from less than one half of the counties in the State have been received, these counties have the bulk of the population of the State.

Alameda and Sacramento Counties have not reported, yet the reprinted monthly reports show data from the Oakland, Alameda, Berkeley, Haywards, Pleasanton, Livermore, Sacramento City, and Folsom health offices. These reports will continue to be incomplete and inaccurate until the Legislature, acting upon the recommendations of the Code Commission, makes provisions for the enforcement of the law relating to vital statistics and creates the office of Registrar, under the direction of the State Board of Health.

FOLSOM PRISON.

This prison violates the law by discharging its sewage into the American River. There is sufficient water-power going to waste that might be utilized to pump this sewage on to the prison farm, where it could be used as irrigation and fertilizer. It should be done at once. No State institution, and more especially one maintained for the repression of crime, should be permitted to set an example of lawlessness by an open violation of the law relating to pollution of rivers and streams.

TUBERCULOSIS AMONG MILCH COWS.

This Board has urged that municipalities issue licenses to sellers of milk, but that they refuse licenses to sellers of milk who bring milk from dairies that do not conform to the standard of requirements established by the local Boards of Health.

These requirements should include clean food, pure water, sanitary surroundings, and good health among the cattle. They should include the application of the tuberculin test for consumption. They should exclude from sale and consumption all milk from dairies that keep tuberculous cows. If the owners choose to kill such cows, so much the better, and the loss should fall on the owners, as the loss that falls on the owners of hogs that die of cholera. If the State undertakes to pay for all sick animals, it should include all kinds, and not tuberculous cattle only.

The Pure Food Law passed by the last Legislature covers the sale of milk of diseased cows, as well as the sale of the flesh of diseased animals. The simple enforcement of that law would do away with the dairy products of consumptive cows, and also their carcasses.

We have the honor to be,

Very respectfully, your obedient servants,

W. F. WIARD, M.D.,
President,
WINSLOW ANDERSON, M.D.,
Vice-President,
J. R. LAINE, M.D.,
Secretary,
J. H. DAVISSON, M.D.,
P. C. REMONDINO, M.D.,
C. A. RUGGLES, M.D.,
C. W. NUTTING, M.D.,
State Board of Health.

ABSTRACT OF PROCEEDINGS OF THE BOARD,

AS SHOWN BY THE MINUTES.

JULY 9, 1894.

The State Board of Health met, pursuant to call of the President, to attend a regular quarterly meeting. Present: Drs. Wiard and Laine.

There being no quorum, owing to the inability of members from a distance to be present, on account of a general strike on all the railroads, the Board adjourned, to meet at San Francisco on a date to be fixed by the President.

JULY 26, 1894.

Regular meeting of the State Board of Health, called by the President to meet in San Francisco. Present: Drs. C. A. Ruggles, Winslow Anderson, W. F. Wiard, and J. R. Laine.

The reading of the minutes of the previous meeting was dispensed with.

On motion of Dr. Anderson, Dr. Wiard was elected to represent the Board as delegate to the American Public Health Association, at Montreal, in September, with Dr. C. A. Ruggles as alternate.

The Secretary was instructed to prepare a circular on the care of consumptives, to be submitted to the Board, before publication, at the next regular meeting.

Dr. Anderson reported having caused a bacteriological examination of suspected tuberculous meat, for the President and by his order, to whom a report has been made. The bill for the examination was \$25, which was ordered paid.

Dr. C. A. Ruggles stated to the Board that he had now been its President for more than two years, and while the duties were not arduous, yet he believed that the honor of the position should be passed along to other members. He therefore resigned, and with graceful words thanked the members for their uniform courtesy and forbearance with his rulings.

Dr. Anderson, in fitting terms, paid just tribute to the labors of the retiring President, and moved that as it was his wish to resign, his resignation be accepted. In doing so, he moved that, on behalf of the people of the State of California, the Board give Dr. Ruggles a vote of thanks for his faithful and efficient labors rendered the State as a member and President of the State Board of Health. This was unanimously adopted.

Dr. Anderson then placed Dr. C. W. Nutting in nomination for President for the ensuing year, and he was unanimously elected.

On motion of Dr. Wiard, Dr. Winslow Anderson was nominated for Vice-President for the ensuing year, and he was unanimously elected.

The Secretary was authorized to obtain such assistance as he may require to complete his biennial report and the circular on care of consumptives. The Board then adjourned.

OCTOBER 15, 1894.

Regular quarterly meeting of the State Board of Health, held at the office of the Secretary, Monday evening, October 15, 1894, at 8 o'clock P. M. Present: Drs. C. A. Ruggles, W. F. Wiard, Winslow Anderson, and J. R. Laine.

Letters were read, which had been received by the Secretary from Dr. C. W. Nutting and Dr. J. H. Davisson, giving reasons for non-attendance.

Drs. Ruggles and Laine were appointed a committee to go to San Francisco on November 15th to arrange for the Third Annual Sanitary Convention, to be held in April, 1895. Such steps were deemed necessary, in order to give sufficient time for the preparation of papers for the occasion.

It was deemed advisable to delay the publication of the circular on the Restriction and Prevention of Consumption, until after the meeting of the Tenth Annual National Conference of State Boards of Health, at Washington, D. C., December 12, 1894, in order to ascertain their views and action.

In view of the very important questions to be discussed at such National Conference, looking to future national legislation relating to quarantine by the National Government, and other equally important matters, it was believed that delegates from California should be sent to take an active part in the proceedings. On motion of Dr. W. F. Wiard, Drs. C. A. Ruggles and J. R. Laine were chosen to represent the California State Board of Health at the National Conference of the State Boards of Health, at Washington, D. C., December 12, 13, 14 and 15, 1894.

The publication of the thirteenth biennial report of the State Board of Health, by the Secretary, was approved.

The Board decided to pay the expenses of the two delegates to said National Conference, out of the Contagious Disease Fund.

JANUARY 28, 1895.

Regular meeting of the State Board of Health, held at the office of the Secretary. Present: Drs. C. W. Nutting, J. H. Davisson, C. A. Ruggles, W. F. Wiard, and J. R. Laine.

Minutes of the previous meeting were read and approved.

A communication from Dr. P. C. Remondino was read and ordered placed on file.

The report of Drs. Laine and Ruggles, delegates to the Tenth Annual National Conference of State Boards of Health, was read and ordered placed on file.

Dr. Davisson, speaking on the subject of the State manufacturing antitoxine, took the ground that the Biological Department of the State University should, under the auspices of the State Board of Health, have control of the matter.

Drs. Wiard and Ruggles expressed similar views.

Dr. J. H. Glass, Chairman of the Assembly Committee on Hospitals, etc., was invited in.

Dr. Davisson moved that the Board ask for an appropriation of \$6,000 with which to proceed with and aid in the establishment of a Bacteriological Department in the State University, where the State Analyst

can go on and manufacture antitoxine and distribute it under the direction of the State Board of Health.

Dr. Glass believed that the Legislature would cheerfully grant the requisite amount to carry out the measure deemed necessary by the State Board of Health.

Dr. Ruggles moved to delay action on the motion until 10 o'clock A. M., January 29th.

Dr. Wiard moved that a State Sanitary Convention be held at the usual time, and the Secretary was authorized to give the regular notice.

Adjourned until 10 A. M., January 29th.

JANUARY 29, 1895.

Board met pursuant to adjournment.

The motion to ask the Legislature for an appropriation of \$6,000, made at the previous meeting, was adopted.

A bill was formulated and adopted, and a committee, consisting of Drs. Ruggles, Wiard, and Laine, was appointed to appear before the legislative committee in the interests of the bill. The committee was instructed to prepare a memorial to present with the bill.

Drs. Laine, Ruggles, and Anderson were appointed a committee to make arrangements for the Third Annual Sanitary Convention, and to secure a hall and employ a stenographer. The Secretary was authorized to employ a clerk to assist in the preparation of material for the Sanitary Convention.

On motion of Dr. Laine, the Board decided to purchase one hundred and sixty acres of land near Cabazon Station, for a permanent quarantine refuge station.

Dr. Anderson moved the segregation of patients suffering from incurable consumption. After discussion, the matter was deferred until the next meeting, as in the meantime a Sanitary Convention would be held, on which occasion the question would probably be more fully discussed.

APRIL 13, 1895.

Regular quarterly meeting of the State Board of Health. Present: Drs. Ruggles, Wiard, and Laine.

Letters were received from Drs. Davisson and Nutting, stating that they would meet with the Board, if it would adjourn to San Francisco on Monday.

There being no quorum present, the Board adjourned, to meet at the Academy of Sciences, the following Monday, April 15th, at 1:30 P. M.

APRIL 15, 1895.

Regular adjourned meeting of the State Board of Health, at San Francisco.

The Board met with the State Sanitary Convention at the Academy of Sciences in San Francisco, attending forenoon and evening sessions. Present: Drs. Nutting, Anderson, Ruggles, Wiard, Davisson, and Laine.

The proceedings of the convention were ordered printed, and the Sanitary Convention adjourned for one year.

The Board adjourned until 9 A. M. April 16th, at the room of President Nutting, at the Baldwin Hotel.

APRIL 16, 1895.

Regular adjourned meeting of the State Board of Health, at San Francisco. Present: Drs. Nutting, Anderson, Wiard, Ruggles, Davisson, and Laine.

Minutes of the previous meeting were read and approved.

The Secretary was instructed to audit bills for the holding of the Sanitary Convention, to approve same, and cause them to be paid out of the fund for the "Prevention of the introduction of contagious diseases into the State."

The claim of Modoc County, for \$2,363 48, expended in stamping out a recent epidemic of smallpox, was presented to the Board, with the opinion obtained after its submission to the Attorney-General. The Attorney-General had rendered the opinion that the expenditure was without the authorization of the State Board of Health, and not by their direction, and there was no liability on the part of the State. The entire opinion of the Attorney-General is as follows:

ATTORNEY-GENERAL'S OFFICE, STATE OF CALIFORNIA, }
SACRAMENTO, April 12, 1895. }

J. R. LAINE, M.D., *Secretary of State Board of Health, Sacramento, Cal. :*

DEAR SIR: Replying to the first inquiry of your communication of April 11, 1895, I am instructed by the Attorney-General to say that the account of Modoc County, if, as stated by your communication, was without authorization of the State Board of Health, and not by their direction, there is no liability on the part of the State.

Subdivision 22 of Section 25 of the Act to establish a County Government (Laws of 1893, page 356), makes provision for the protection of the health of the people of the county in such cases as suggested by the heading of the account, and directs that all necessary expenses for enforcing this Act shall be paid out of the General Fund of the county.

In answer to your second question as to the purchase of a tract of land for a permanent quarantine station: If, by a resolution of your Board, at a regular meeting, the necessity for such a station is determined upon, I am of the opinion that it may be purchased from the balance remaining from the appropriation made by the Act of 1893 for the prevention of the introduction of contagious diseases; but it must be done under the direction of the Governor, and the resolution should recite the necessity therefor, for the prevention of the introduction of contagious and infectious diseases into the State.

The question of conducting water, and the means incidental thereto, are an apparent necessity, if the site be purchased, and may be included in a resolution as above.

I doubt your authority to make a contract with the Southern Pacific Railroad Company for the construction of a spur, and must decline to give an opinion, unless the elements of a contract with such company be submitted. If a contract can be made so as to give your Board absolute control of the spur, I think it may be done. I would, however, wish to know the terms before expressing definite opinion.

Respectfully,

J. C. DALY,
Assistant Attorney-General.

The matter of purchasing a quarter-section of land adjacent to Cabazon Station was next taken up, and the correspondence had with the Southern Pacific Company duly submitted.

Dr. Anderson introduced the following resolution, which was passed unanimously:

WHEREAS, The State Board of Health has found it necessary, from time to time, whenever reports of approaching contagious diseases from Mexico, or any point east or south, were received, to send an inspector to some point near the State line to prevent such contagious disease from entering the State, and has found it necessary to detain trains on the inhospitable desert; and

WHEREAS, The establishment of a permanent quarantine or refuge station, at some point between Yuma and the more thickly settled portions of Southern California, is believed to be necessary, in order to avoid danger; therefore,

Resolved, That the State Board of Health purchase for the State one hundred and sixty acres of land adjacent to Cabazon Station, on the Southern Pacific Railroad, on

the western borders of the Salton Desert, which, after a thorough survey of the field, is believed to be the only practicable point between the Colorado River and Los Angeles;

Resolved, That they cause the roadbed to be graded, and a spur to be built thereon leading to the most convenient point on the tract of land to be purchased; that they cause a water-pipe to be extended from the Southern Pacific Railroad station tank at Cabazon to the land in question, for the purposes: first, of supplying the detained passengers and trains, in case it should be found necessary to do so; second, to irrigate a plat of ground around the refuge station and supply moisture for trees that will be set out, in order to afford shade to those who may be unfortunate enough to be detained;

Resolved, That, if found necessary, at least \$100 a year should be expended to care for the trees and grass plat at the station; that it is not believed to be necessary to erect permanent buildings upon the quarantine grounds, inasmuch as temporary structures can be erected with lumber obtained from Los Angeles at extremely short notice; that if anything of a permanent character should be attempted, it should be simply the erection of sheds over the proposed spur at the quarantine station, so that a train, or cars, if detained, would be under shelter of sheds to protect them from the rays of the hot sun; but that it is not deemed expedient to do this at the present time.

Dr. Davisson offered the following resolution, which was adopted:

Resolved, That the State Board of Health proceed to purchase for the State, at the price of \$400, the following described tract of land near Cabazon Station, on the Southern Pacific Railroad: The S.E. $\frac{1}{4}$ of section 9, township 3 south, range 2 east, S. B. M., to be used as a permanent quarantine and refuge station against the introduction of contagious and infectious diseases into the State of California; and that the committee appointed by the State Board of Health are hereby authorized, empowered, and instructed to confer with the Governor of the State of California, with a view to the completion of the purchase and the construction of a pipe-line from the Southern Pacific water-pipe, and also the construction of a necessary spur from the Southern Pacific Railroad to the refuge station; also, the setting-out of trees and grass plat, and making the necessary arrangements for their care and irrigation; also, to arrange for the erection of necessary sheds, buildings, and other improvements when found necessary.

Dr. Davisson then moved that the Chair appoint a committee of three to have this matter in charge, and that Dr. Laine be made Chairman of the committee, and that said committee be empowered to contract for the expenditure of such sums as may be found necessary to carry these instructions into effect.

The motion was carried, and the Chair appointed Drs. Laine, Ruggles, and Davisson.

Dr. Anderson offered the following resolution with reference to the purchase of antitoxine:

Resolved, That the Secretary be instructed to purchase \$125 worth of Roux antitoxine, and \$125 worth of Behring's antitoxine, for free distribution under direction of the State Board of Health.

Adopted.

Dr. Ruggles moved that the State be divided into five districts, each to be presided over by a member of the State Board of Health, for the purpose of receiving and distributing the diphtheria antitoxine; that District No. 1, to be presided over by Dr. Nutting, comprise the territory from the Oregon line to Redding; District No. 2, to be presided over by Drs. Laine and Wiard, comprise the territory from Redding to Sacramento, inclusive; District No. 3, to be presided over by Dr. Ruggles, consist of Stockton, the San Joaquin Valley, and the territory south to Tehachapi; District No. 4, to be presided over by Drs. Davisson and Remondino, comprise the territory from Tehachapi Pass south to the State line; District No. 5, to be presided over by Dr. Winslow Anderson, comprise San Francisco and surroundings.

The motion was carried.

On motion of Dr. Anderson, the Secretary was instructed to prepare

return blanks to accompany each package of antitoxine distributed; such blanks to contain the following data: The date of the manufacture of the antitoxine; the name of the physician who injected it; the date of the injection, and the name of the person on whom it was injected; the card to be signed by the physician who uses it, and returned at once to the distributing officer.

The President appointed Drs. Laine, Anderson, and Ruggles as a committee of three, to confer with the members of the Veterinary Department of the State University, as to the immediate manufacture of antitoxine for the State Board of Health.

The Secretary was authorized to appoint a stenographer and typewriter to assist in carrying out the instructions of the Board.

The Secretary was also instructed to prepare a circular, embodying the views of the Sanitary Convention as to the establishment of hospital rooms in hotels, lodging-houses, and private residences, and to see to the distribution of same; another on diphtheria, with antitoxine treatment; another on smallpox, typhoid fever, measles, whooping-cough, consumption, contagious diseases of the eyes; and another on the practical tests of pure drinking water; and to cause the same to be printed and distributed.

Secretary Laine was instructed to go to Pleasanton, at his convenience, at the invitation of Dr. Cope, to confer with the authorities with reference to perfecting a system of sewerage at that place.

On motion of Dr. Ruggles, the Board proceeded to the election of officers for the ensuing year.

On motion of Dr. Ruggles, Dr. J. H. Davisson of Los Angeles was unanimously elected President for the ensuing year. On motion of Dr. Wiard, Dr. Winslow Anderson was unanimously elected Vice-President for the ensuing year, and Dr. Laine was elected Secretary.

On motion of Dr. Wiard, Dr. J. H. Davisson was elected delegate to the Section of Public Health at the American Medical Association, meeting to be held in Baltimore, May 8, 1895. His expenses to be paid out of the fund for the prevention of the introduction of contagious diseases into the State.

The Board then adjourned, to meet and inspect the Home for Adult Blind in Oakland, and the Asylum for Deaf and Dumb and the Blind at Berkeley.

APRIL 18, 1895.

The Board proceeded to the Home for Adult Blind at Oakland, and made a sanitary survey of the institution, and an inspection was made of the kitchen, stores, dining-room, dormitories, and laboratories, also of the grounds. Everything about the institution was pronounced to be in good sanitary condition. No objection could be made to the condition of the kitchen and storehouse. The only recommendations made to the Superintendent were, that the dining-room should be calcimined and that screens should be obtained at once for the kitchen and dining-room. This, the Board was informed by the Superintendent, had already been ordered. In view of the fact that the management was under the authority of a blind man, the general condition of affairs was most satisfactory.

The Board then proceeded to the Asylum for the Deaf and Dumb and the Blind, situated at Berkeley, more with a view of seeing the pleasing

surroundings of the locality, than with the expectation of discovering any sanitary deficiencies. They found occasion merely to commend what they saw, and returned to San Francisco.

The committee appointed to confer with a committee from the Veterinary Department of the State University, met them at the office of Dr. Winslow Anderson, where the figures produced by the veterinary committee showed that, in order to manufacture antitoxine, an estimated expenditure of between \$5,000 and \$6,000 would be necessary during the two years for which an appropriation by the Legislature had been made. This would not include an estimate for the services of the University faculty. In consideration of these figures, the committee decided to report that they deemed it inexpedient to manufacture the remedy; therefore, on motion of Dr. Anderson, the Secretary was instructed to purchase antitoxine to the amount of \$250, at as low a figure as it could be obtained, to be distributed free, under the direction of the State Board of Health. The Board was informed that private firms have undertaken the manufacture of the remedy, and in consequence there was every probability that in the course of a few months it could be obtained at a reasonable figure.

The Board then adjourned.

JUNE 5, 1895.

A special meeting of the State Board of Health was held at Los Angeles, at the office of Dr. J. H. Davisson, on June 5, 1895. Present: Drs. Davisson, Remondino, Wiard, Ruggles, Anderson, and Laine.

The President stated that the object of the meeting was to consider the epidemic of smallpox in Arizona, which had necessitated the sending out of an inspector on trains between that Territory and California. Dr. M. F. Price was the inspector.

The President read a statement from the inspector concerning present condition of affairs at points in the smallpox region.

On motion of Dr. Wiard, the appointment of Dr. Price was confirmed.

On motion of Dr. Remondino, the salary of the inspector was fixed at \$250 per month and actual expenses.

Dr. Ruggles reported having visited the Preston School of Industry, at Ione, agreeable to request by wire from Governor Budd, and having found a convalescent case of scarlatina, two convalescent cases of typhoid fever, and two cases of la grippe. The report was accepted, and the bill of Dr. Ruggles for the trip to Ione was determined to be outside of his official duty as a member of the Board, and was ordered paid out of the Contagious Disease Fund. The bill was for \$25, and no traveling expenses.

The Secretary reported having, by inadvertence, appointed Dr. George Goodfellow inspector for the Board in Arizona; but that as the Secretary had received no reports from him agreeable to his instructions, he could not say if any services had been performed. The Secretary was instructed to write to Dr. Goodfellow and ascertain if he had performed any services by the authority given him by the Secretary in his appointment.

The Secretary was instructed to purchase a new supply of antitoxine, and to secure a new supply every month. He was also directed to order new piston syringes for use with antitoxine.

On motion of Dr. Wiard, the Board agreed unanimously to meet at 2 P. M. the next day at Santa Catalina Island, to pass upon and examine into the claims made for that island as a natural sanitarium.

JUNE 6, 1895.

Adjourned special meeting of the State Board of Health, at Santa Catalina Island. All members present, excepting Dr. C. W. Nutting.

The island was reached by steamer from San Pedro Harbor. The day was clear and the sea calm. Flying-fishes sprang from the waves and, describing a glittering and crescentic flight, dropped again into the water. Great fishes projected their vicious dorsal fins above the waves, and when disturbed by the steamer's approach, their brown bodies became lost in the depths. A school of whales estimated at twenty or more was encountered; some spouted, while others seemed to be disporting themselves, idly raising their great balloon-like bulks above the surface of the sea, to astonish us by their immensity, and then sink indolently back into the green water in apparent comfort.

The steamer landed in a beautiful, crescent-shaped indentation on the southeast side of the island. This is Avalon. Landing was made at a projecting wharf, amidst a flotilla of small boats at their moorings.

The island is a mountain rising in the ocean, from one to eight miles wide and about twenty-five miles long. Its rocky and wave-washed abutments on the west lift the wind and fog, when they prevail, above the crest of the serrated range, so that the little harbor of Avalon is protected and sheltered from them. The temperature varies from 1° to 6° Fahr., between day and night the year round. There is little or no tide. The morning air is still and warm. A feeling of rest is engendered as you gaze at sea and mountain, and the senses are lulled into a condition that induces refreshing sleep. The appetite which follows is a surprise.

The management is making improvements commensurate to the requirements of guests. Avalon is already in appearance a thriving village. The hotel accommodations are ample. There is a sand and gravel beach and a bath-house close by. The fishing is unsurpassed. Santa Catalina has a leading place in the list of Southern California attractions, and stands at the front as a marine sanitarium in any country on the globe. The restorative quality of air and scenery is attested on indisputable authority. The experience is novel even to old travelers, and its recollection is pleasing beyond the commonplace. A trip to this island is a sanitary experience which will be neither regretted nor forgotten.

The Board adjourned until next day.

JUNE 7, 1895.

Adjourned special meeting. All present, except Dr. C. W. Nutting.

An inspection of the State Normal School at Los Angeles was made. There was nothing to be noted in the old part of the building, as that part had been inspected before; but a new part has been added, which is commodious, well lighted, and well heated; no provision, however, has been made for ventilation, except by the windows and doors. The hat and cloak rooms are dark and narrow, and open directly into the water-closets. The closets and urinals are of modern pattern, but there is no adequate ventilation of the closets. A closet 8 x 20 feet, with several seats and three or four urinals, needs something more than a

12-inch or 14-inch grated opening set in the wall several feet from the ceiling, as a ventilator. The construction of this part of the building, with reference to its ventilation, is abominable, and was unanimously condemned. A ventilation shaft of large dimensions should pierce the building from base to dome, so as to freely ventilate the closets and free the cloak rooms from odor. Adequate ventilation for the class and other rooms cannot be put in now without defacement of the walls and increased expense.

The Board adjourned, to meet next day at Highland Insane Asylum.

JUNE 8, 1895.

Adjourned special meeting at Highland Insane Asylum. All present, except Dr. C. W. Nutting.

The building, consisting of two wings, with necessary culinary and laundry appurtenances, is situated on an elevated slope, overlooking a wide and fertile valley. No administration building has yet been erected. The wards, dormitories, lavatories, corridors, kitchens, dining-rooms, sculleries, and grounds were scrupulously clean and neat. The food-supplies were of good quality. The water-supply is ample, but carries a large quantity of sediment in winter. It is carried thirty miles in an open ditch, which skirts the mountains north of the asylum, and is received in a reservoir at the base of the range, a short distance above the grounds. A new supply, for drinking purposes, should be obtained; this can be done, at small expense, from deep wells. This would, in addition to the advantage of clear water, obviate the danger of contamination in the open ditch. There should be lateral sewers constructed from the main sewer, so as to increase the acreage of land irrigated by the sewage from the asylum. Otherwise, the plumbing, sewerage, and drainage of the asylum are sufficient for present purposes.

Adjourned to meet, unofficially, at Mount Lowe, or Echo Mountain, the next day.

JUNE 9, 1895.

The Board visited Mount Lowe, or Echo Mountain, unofficially. It is situated on one of the steps of the great range that forms the northern boundary of the lowlands that face and descend to the ocean. The chief interest is in reaching an altitude of 3,500 feet in a very short time, and in a peculiar manner. This is done by trolley as far as possible, but the trip is concluded in a car attached to an endless cable that makes a lift of 1,300 feet over a track about 3,000 feet in length. A portion of this track has a grade of 65 feet to the 100. The ascent and descent are thrilling enough for the most daring. Experience and observation show that the air on Echo Mountain is warmer in winter and cooler in summer than it is down in the valley. For a view over a wide and varied range the scene is unrivaled: the rugged mountains, rent, seamed, and scarred on side and rear; an expansive valley spread out at our feet; the ranches and orchards set out in checker-board precision: first, Pasadena is seen amidst green orchards, but beyond and across a low range of hills Los Angeles is seen, smokily blending with the ocean twenty miles farther, terminating its cloudy green tints in the towering cliffs of Santa Catalina Island. The change from the valley to Echo Mountain is agreeable to asthmatic trouble, and proves a tonic to those suffering from any form of nervous, mental, or physical depression.

The well-appointed hotel, spacious and in every way luxuriously equipped, would indicate that the patronage is chiefly from the leisure class. The choice is well made; the project is daring in conception and execution. A large observatory adds to the attraction. This resort will, without doubt, lengthen the days of many weary men. A brain-fagged man reaches this spot, which in no manner resembles a health resort, and is charmed and lulled into rest; and is thus forced by interest and admiration to remain longer than he had planned. His dull eyes light up with renewed life; the yellow mists of melancholy lift from his brain; the cumulative evils of overwork are neutralized by the life-giving surroundings, and he recuperates, until he returns to the rack—for a time, at least, renewed.

JUNE 10, 1895.

Adjourned special meeting at Whittier State School. All present, except Dr. C. W. Nutting.

Sanitary inspections of this school have been made before, and nothing but words of commendation have been spoken. The Board found nothing to criticize adversely. The new work and buildings show knowledge of the value of light and ventilation. The old building is clean, and the health of pupils excellent.

The Board would suggest the advisability of regularly enlisting two or three full companies of the older boys into the National Guard, with a view, first, of furnishing a motive for ambition, by good behavior, to become eligible to enlistment; second, to have two or three companies of State troops always on duty at the school, uninfluenced by local consideration, except to obey their officers. Arms and uniforms might be furnished with safety. Quarters, food, clothing, and military instruction in evolutionary tactics are now supplied. Arms of old pattern, with instruction in manual and guard mount, would convert the boys into a very effective State force, which might be depended on, so far as sentimental considerations are concerned, at times, even better than an equal number of the National Guard.

Adjourned.

JULY 22, 1895.

Regular quarterly meeting of State Board of Health. Present: Drs. Davisson, Wiard, Ruggles, Anderson, and Laine.

Dr. Davisson reported the continuance of the epidemic of smallpox in Arizona Territory, near the Mexican border, and expressed the opinion that it would be advisable to continue the inspection of trains on the desert. He also reported that Dr. M. F. Price, the inspector for the Board, was now located at Indio, in Salton Desert.

On motion of Dr. Wiard, the matter of inspection against smallpox in the south was left to the discretion of the President of the Board, Dr. Davisson.

Dr. Laine was elected delegate to the American Public Health Association, at Denver, Colorado, to meet October 1st to 4th; and Dr. Ruggles, to the National Conference of State Boards of Health; the expenses of each to be paid out of the appropriation to prevent the entrance of contagious diseases into the State.

The Board adjourned, to meet the next day at Agnews Asylum.

JULY 23, 1895.

Adjourned regular meeting of State Board of Health, at Agnews Insane Asylum. Present: Drs. Davisson, Ruggles, Wiard, Anderson, and Laine.

A careful sanitary inspection of the asylum was made—its grounds, wards, dining-rooms, kitchens, store-rooms, laundry, bakery, plumbing, baths, lavatories, closets, urinals, and other necessities—and proved them to be in good sanitary condition. The water-supply is unexceptional, and the quantity inexhaustible. It is obtained from flowing wells on the grounds. The sewage is carried a long distance, and the system is free from objection. There is evidence of careful and humane treatment of inmates, and everything about the asylum is in a satisfactory condition.

The Board adjourned, to meet at San Quentin Prison the following day.

JULY 24, 1895.

Adjourned regular meeting of State Board of Health, at San Quentin Prison. Present: Drs. Davisson, Ruggles, Wiard, Anderson, and Laine.

The Board, after examining into the sanitary condition of the various quarters for prisoners, inspected the dining-rooms, kitchens, and store-rooms. The jute mills were also examined. Nothing in the way of improvements can be done to quarters for prisoners. The cells now in use are as healthy as such places of like dimensions can be made. There is nothing in the occupation of the prisoners, in any department, which in any way lowers the general health. The large number of sufferers from pulmonary disease (consumption) is an inseparable accompaniment of a conglomeration of prisoners from the various jails of the State. The prison management is able to show that these cases come to the prison already afflicted with consumption. The best reasons exist leading to such a conclusion. The kitchen at this prison is a nuisance and a disgrace to a State institution. It is much improved over its condition when this Board first inspected it, but it can never be made satisfactory. The entire building used as a kitchen and dining-room should be torn down and removed altogether, the ground terraced down to an agreeable slope, and the adjoining building on the west side should be occupied on its ground floor as a dining-room, kitchen, store-room, and bakery, and the upper floor as hospital rooms and for other purposes. At present, the buildings stand so close together as to interfere with the light; it is necessary to burn gas in the kitchen and bakery every day. The old structure has outlived its usefulness, and should be removed.

The Board adjourned.

SEPTEMBER 3, 1895.

Special meeting of the State Board of Health, held at 920 Sutter Street, San Francisco. Present: Drs. Winslow Anderson, C. A. Ruggles, W. F. Wiard, and J. R. Laine.

Dr. Anderson, presiding, stated the object of the meeting to be to determine whether any information regarding the prevalence of cholera at Honolulu or Asiatic ports should be sent to the General Government.

Dr. Laine introduced the following resolution:

Resolved, That the Secretary be directed to communicate to Surgeon-General Walter H. Wyman, of the U. S. Marine Hospital Service, the general reports concerning the presence of cholera in Oriental and Island ports having steam communication with United States Pacific ports, asking that, if our information is corroborated by United States Consular advices, the Government declare such Oriental and Island ports infected, and that it proceed to establish such quarantine against them as shall insure compliance with the quarantine laws, rules, and regulations of the United States.

The resolution was adopted. Dr. Ruggles did not vote. He stated that he would be willing to vote to declare certain ports infected, but would like to vote against asking the Government to declare a quarantine against them, or for asking the Government to enforce the United States quarantine laws, rules, and regulations against them.

The Secretary prepared the following letter, which was unanimously ordered wired to Washington:

To WALTER H. WYMAN, Surgeon-General U. S. A., M.D., *Washington, D. C.*:

SIR: I am directed by the California State Board of Health to communicate to you that it is currently reported that Asiatic cholera prevails in several Oriental ports having steam communication with United States Pacific ports; and that it prevails also at Honolulu, in the Hawaiian Islands, a foothold having been recently obtained in that port through passenger travel by steamer from China and Japan. Should this general and unofficial information be corroborated by Consular reports, it is deemed advisable that the Government should declare such Oriental and Island ports infected, and proceed to establish such quarantine against them as shall insure compliance with the quarantine laws, rules, and regulations of the United States.

J. R. LAINE, M.D.,
Secretary.

The Board then adjourned.

SEPTEMBER 16, 1895.

Special meeting of the State Board of Health, held at San Francisco. Present: Drs. Davisson, Wiard, Anderson, Ruggles, and Laine.

The President, Dr. Davisson, stated the object of the meeting to be to advise with reference to cholera, and to meet the San Francisco Board of Health, on their invitation.

Dr. Ruggles introduced the following preamble and resolution, which was unanimously adopted:

WHEREAS, The California State Board of Health, at a special meeting held on September 3d, requested the General Government, through the Marine Hospital Service, to declare certain Oriental and Island ports infected with cholera, and that such quarantine be declared against them as should insure compliance with the quarantine laws, rules, and regulations of the United States; and

WHEREAS, Surgeon-General Wyman, on September 4th, replied, stating that the presence of cholera in Oriental ports and Honolulu was confirmed by Consular advices, and that all quarantine stations on the Pacific Coast were in a high state of efficiency, and that steps would be taken to prevent the entrance of cholera into the United States; therefore be it

Resolved, That the California State Board of Health, acting in its advisory capacity, would recommend that the local health authorities at every port along the coast declare a quarantine against such foreign ports as have been officially declared by the General Government to be infected, and to appoint inspectors to examine every vessel and sailing craft of every description that may attempt a landing at the smaller ports; and further

Resolved, That all Boards of Health in the State be strongly advised to urge the cleansing of all towns and villages, the putting of all sewers in a sanitary condition, the cleansing of privies, and the annihilation of all odors from decomposing substances; that closets and privies at railroad stations and ferries, and at points where people congregate in considerable numbers, be newly cleansed and flushed; and that the people be instructed to boil the water for drinking purposes, and to eat nothing but recently cooked food.

In view of the continued prevalence of smallpox on the Mexican border, the necessity of vaccination is apparent, and, on motion of Dr. Davisson, the State Board urged vaccination as the essential precaution against infection.

The Secretary was instructed to purchase a supply of antitoxine.

The meeting adjourned, to meet at the Mayor's office, in the City Hall, at 10 o'clock the next day.

SEPTEMBER 17, 1895.

Adjourned special meeting of the State Board of Health, held at the office of the Mayor of San Francisco, in the City Hall, in conference with the City Board of Health of San Francisco, and Dr. Godfrey of the United States Marine Hospital Service. Present: Drs. Davisson, Wiard, Anderson, and Laine, of the State Board of Health; Mayor Adolph Sutro, and Drs. Morse, Williams, Hart, and Fitzgibbon, of the San Francisco Board of Health; Dr. Mayon, of the Health office of Oakland.

Remarks were made by Mayor Sutro, Dr. Davisson, Dr. Hart, and Dr. Godfrey.

A committee was appointed to draught resolutions in relation to the prevention of the entrance of the Asiatic plague into our country. Drs. Morse, Anderson, and Godfrey were placed on the committee.

The conference then adjourned.

OCTOBER 14, 1895.

Regular quarterly meeting of the State Board of Health. Present: Drs. Anderson, Ruggles, Nutting, Wiard, and Laine.

Minutes of previous meetings were read and approved.

A communication from the Attorney-General was read, and blank contract was received for spur and water pipe-line at Cabazon, a station on the Southern Pacific Railroad. The memorandum did not find favor with the Board, and Secretary Laine was appointed a committee of one to arrange a memorandum so as to agree with the provisions of the resolution of purchase of the spur and pipe-line at the quarantine station.

On motion of Dr. Wiard, the Secretary was instructed to consult the attorney for the State Board of Health, to ascertain the powers of the Board with reference to the pollution of the streams by sewage, and to proceed to the abatement of any such nuisance found to exist, if authority is shown to inhere in the State Board of Health.

The Secretary was instructed to reply to communications relating to the purchase of antitoxine.

The Secretary was also instructed to consult the Attorney for the State Board of Health as to the necessity of enforcing Section 3080 of the Political Code, at San Mateo.

The communication from Dr. Lathrop was referred to the Attorney for the Board; as was also the letter of M. Thornburg, of Santa Maria.

The Secretary was instructed to correspond with all public institutions, in case of suspected impure water-supply, to have it analyzed by the State Analyst.

Inspection of State institutions, on motion of Dr. Nutting, was postponed until the January meeting of the Board.

On motion of Dr. Wiard, the Secretary was authorized to employ a typewriter to write the necessary correspondence relating to the Board's action, and to perfect the contract for the spur and pipe-line at Cabazon Station.

The report of Dr. M. F. Price, as Sanitary Inspector in Southern California, was received and ordered printed in the transactions of the Board. The report is as follows:

LOS ANGELES, CAL., October 1, 1895.

J. H. DAVISSON, M.D., *President State Board of Health:*

DEAR DOCTOR: On the 23d of April, 1895, you honored me with the appointment of "Sanitary Inspector and Quarantine Officer for the California State Board of Health, to act within the State and on the line of the Southern Pacific Railway," and instructed me to proceed at once to Yuma, Arizona, and enter on the work of guarding our State against the invasion of smallpox, which was prevailing in Southern Arizona and Sonora, Mexico. After my arrival at Yuma I received my commission and instructions, as follows, viz.:

"OFFICE OF CALIFORNIA STATE BOARD OF HEALTH, }
SACRAMENTO, April 23, 1895. }

"Dr. M. F. PRICE, *Los Angeles, Cal.:*

"DEAR DOCTOR: You are hereby appointed Sanitary Inspector for the State Board of Health, to act between Yuma and such point to the west of the Salton Desert as may be convenient.

"Enclosed printed slip* is the law under whose authority you will act as the agent of the Board, and which you are to regard as part of your instructions.

"You will place yourself in communication with Dr. Goodfellow, east of Yuma, and, if necessary, with the inspector of the U. S. Marine Hospital Service, with reference to the prevalence of smallpox in Arizona.

"You will inspect all trains coming into the State, and if you should find people afflicted with the disease, or have evidence that they are bringing infection into the State, you will take such action as you may deem necessary with reference to detaining passengers or trains for disinfection. Inasmuch as a good deal must be necessarily left to your discretion, it is the wish of the Board that no arbitrary or unnecessary action be taken.

"You will supply yourself with reliable vaccine virus, and not only cause trainmen to be vaccinated, but also insist upon thorough vaccination of any who are known to have recently come from an infected locality.

"You will keep me advised frequently of any action you may take.

"The Board knowing you to be a man of experience, it is not deemed necessary to give you specific directions concerning disinfection of persons, clothing, or trains. It is the opinion of the Board that Cabazon Station should be the point of detention, as a quarantine station is to be established at that point on land soon to be acquired for that use by the State.

"Yours very respectfully,

"[SEAL.]

"J. R. LAINE,
"Secretary State Board of Health."

I arrived at Yuma, April 24, 1895, and at once entered on the work assigned me. To work "within the State" I had to make a daily trip to Indio and return. This involved a ride of 238 miles each day across the Salton Desert, during the hottest season of the year. I soon learned that this was too much for the physical endurance of any man, so cast about for a remedy. I wrote to Dr. Goodfellow, Territorial Health Officer of Arizona, and, by his aid, arranged for a conference with the Governor of the Territory at Phoenix. We had this conference on the 4th of May, and on the 6th I again met the Territorial Health Officer at Tucson. Through these officers and officials of the Southern Pacific Company I was enabled to inspect incoming trains on the east side of the Colorado River. All necessary details to make my work effective were arranged and carried out.

Dr. Goodfellow inspected the trains at Tucson, and sent me daily reports. The Station Agent at Gila Bend telegraphed me whenever any passengers boarded the train at that station for California points, so that I was prepared for their thorough examination on arrival at the point where I inspected the train.

Dr. W. F. Chenoweth, of the Marine Hospital Service at Nogales, kindly cooperated, and sent me information frequently.

I inspected all passenger trains coming into the State, and freight trains when there were any passengers on board; vaccinated those who had been in or near the infected territory, and used every precaution deemed necessary.

I retained my headquarters at Yuma until a change in the railroad time-table (July 15th) brought the principal passenger train at Yuma in the night. I then changed to

*Sections 1, 2, and 3, of "An Act to prevent the introduction of contagious or infectious diseases into the State of California."

Indio, where I remained during the rest of the service—to September 27th—when I was relieved.

During my term of service smallpox was epidemic and severe at several points in Arizona and Sonora, Mexico, there being in all, as nearly as I am able to compute from data at my command, not less than three hundred and fifty or four hundred cases. The death-rate I am unable to determine. The points in Arizona visited by the disease were Nogales, Bisbee, Solomonville, Sonoita, Washington Camp, Oro Grande, Arivaca, and perhaps other places. In Sonora it was the worst at Nogales and the Minas Prietas and Arizpe Mining Districts. In Minas Prietas it was reported to me that there were one hundred and seventy cases at one time, and up to that date there had been fifty deaths. There were still a few cases in Sonora at the time of my leaving, but it was thought to be safely under control.

I was heartily seconded in my work by the officers and health authorities of Arizona, and the officials and employés of the Southern Pacific Company, and I desire to especially thank Hon. D. C. Hughes, Governor; Dr. George Goodfellow, Health Officer; Dr. W. F. Chenoweth, Marine Hospital Service at Nogales; Dr. H. W. Fenner, Tucson; Dr. R. M. Dudley, Solomonville; Superintendent Muir, and the conductors and brakemen of the Southern Pacific Company.

I herewith hand you all correspondence, telegrams, inspection reports, etc., pertaining to the epidemic, and received by me while on duty.

With gratitude to yourself and the Secretary of your Board, for your uniform kindness to me during my term of service as Sanitary Inspector, under your direction, I am, Doctor,

Yours very respectfully,

M. F. PRICE, M.D.

The Board then adjourned.

JANUARY 15, 1896.

The Board met at Stockton, to inspect the asylum for the insane located therein. There were present Drs. Davisson, Ruggles, and Laine, and Hitchcock, of Los Angeles, by invitation.

A full inspection of the asylum revealed a complete transformation of the entire institution. The kitchens were in good condition. Natural gas is used as a fuel. There have been changes made in the grounds by filling, and landscape gardening. The wards, lavatories, and closets were clean, newly painted and tinted, and altogether there was an air of neatness and quiet discipline everywhere about the premises. In connection with the kitchen, all the beef bones are crushed and boiled for fat, marrow, and gelatin. The Superintendent estimates a saving of \$5 in fats and soap stock for every animal consumed, by this treatment of the bones. Three plunge-bath tanks have been constructed, 25 x 50 feet in dimensions, to enable patients to bathe frequently. The water supplied to the tanks is adequate, and comes from artesian wells on the grounds; it flows by natural pressure, and is about 88° Fahr. The meat, vegetables, and other subsistence supplies were of good quality.

JANUARY 15, 1896.

Regular stated meeting at Sacramento. Present: Drs. Davisson, Ruggles, Wiard, and Laine.

Letters from H. K. Mulford & Co., with reference to purchase of anti-toxine, were read, and, on motion of Dr. Wiard, the matter was referred to the Secretary, except that an American brand shall be preferred, and Parke, Davis & Co.'s be obtained where everything is equal.

The new contract for a quarantine station at Cabazon Station was signed by those present, and the contract was ordered forwarded to absent members for their signatures.

A letter from the Code Commissioners, with reference to desired changes in the health laws of the State, was referred to the Secretary,

with instructions to consult with the Attorney-General on the subject, and then confer with the Code Commission.

On motion of Dr. Wiard, the time set for holding the Fourth Annual Sanitary Convention was fixed for 10 A. M., April 20, 1896, and the place determined on was Los Angeles. Drs. Davisson and Laine were appointed a committee to provide a hall and make all necessary arrangements for holding the convention. The Secretary was directed to invite contributions of short papers to be read at the convention.

The Secretary was also instructed to have the names of all the members of the Board printed on all the preventive disease circulars hereafter published by the Board for free distribution.

Dr. Davisson submitted a report of the late sanitary inspector for smallpox, Dr. M. F. Price, which was ordered received and printed in the biennial report.

JANUARY 16, 1896.

Present: Drs. Davisson, Ruggles, Wiard, and Laine, and Dr. Hitchcock by invitation.

The Board proceeded to an inspection of Folsom Prison. The sanitary condition of this prison is as perfect as practicable. An improvement has been made by the construction of a new dining-room and kitchen. The kitchen is equipped with modern ranges and caldrons. The floors are cemented, and the structure has the most substantial appearance. The prison continues to discharge its sewage into the American River.

The Board determined to take steps to prevent the pollution of streams by sewage.

JANUARY 17, 1896.

The Board met at Napa Asylum for the Insane, to inspect the same. Present: Drs. Davisson, Ruggles, Wiard, and Laine, and Dr. Hitchcock by invitation.

The site for the buildings is admirable, and the location is beautiful. The external architecture is graceful, and ornamented with a carved stone portico. The internal arrangement of the Administration Building is abominable. The corridors are wide, with wide stairs flanked with imposing columns. The stairs and corridors are insufficiently lighted by windows opening on the side, which are dimmed by stained glass. This space is a total waste, but it is a fault of construction. Detached buildings should be constructed for officers and their families. The wards showed evidence of due care for the welfare and comfort of patients. They were clean, and the bedding was sufficient. The closets and lavatories were clean, but patchy. Where plaster has fallen, it has been replaced but not tinted over. The plumbing needs painting; also the base-boards of the wards and some dormitories. Paint, whitewash, and tinting are not expensive, and add greatly to the appearance of a public institution. The kitchens and dining-rooms were in good condition, but the kitchen equipments were of ancient pattern, which are still serviceable. The bakery was untidy, and should be overhauled and inspected daily. The food-supplies were of good quality, except the potatoes, which were pitted and warty. The laundry was in a serviceable condition.

From Dr. Dozier's statement, supplemented by that of Dr. Smith, the water-supply is inadequate for the purposes of the institution. There

is insufficient pressure in the closets at this time, and Dr. Dozier stated that during the summer water did not run in the buildings for four or five hours at a time during the day, and that such a condition was of common occurrence. Under such circumstances, the bathing facilities must be greatly restricted. No time should be lost in securing an ample supply of water for all purposes. The sewer system has been completed and is satisfactory.

The Board would recommend that a sufficient water-supply be obtained; that the base-boards in wards, corridors, lavatories, and dormitories, where defaced, be repainted; that walls, where patched, be newly kalsomined or tinted; that the traps and exposed plumbing be repainted; also, that the fifty remaining wooden bedsteads be dispensed with and iron ones obtained in their stead. Folsom Prison makes a strong iron bedstead at an expense of \$1 80 apiece. The Board would further recommend a daily inspection of kitchen, bakery, and laundry by the Superintendent, or by one of his medical staff, and a rigid enforcement of scrupulous cleanliness in each department.

JANUARY 18, 1896.

The Board met at the Home for Feeble-Minded Children, at Glen Ellen. Present: Drs. Davisson, Ruggles, Wiard, Laine, and Dr. Hitchcock by invitation.

The Home, in all matters under the direct control of the Superintendent, was in an excellent sanitary condition. The kitchen was clean, and food-supplies of good quality. The wards were clean and the walls in good repair. There was ample evidence of adequate care and interest in the unfortunate inmates to justify the unqualified approval of the Board. The Board would, however, suggest the erection of detached cottages for the segregation of consumptive children, deformed children, and those of irreclaimable filthy habits, who cannot be instructed into a fitness for civil life. We think such structures, if erected for economy, would be of greater benefit than the architectural monstrosities builded by the State. They should be cheaply built, but lighted and heated from a central source. Jacketed steam-pipes run through an iron-stone sewer-pipe covered with earth may be used to convey heat. A suitable kitchen at a central point should prepare all the food. While, in one sense, exposure of inmates to infection of tuberculosis would be a benefit by ridding the State of incurable defectives, yet inasmuch as the State has undertaken their care and education, it should adopt all the expedients known to prolong their lives in any stage of their mental development.

Observation and experience have shown that adequate ventilation is expensive, difficult, and well nigh impossible in large brick and stone buildings. The habits of the feeble-minded make it necessary that rooms should be well ventilated.

The Board further recommend that facilities be obtained for an upright bath, especially for epileptic children.

The Board then adjourned to San Francisco, where Drs. Ruggles, Laine, and Wiard were appointed a committee to visit Ukiah at an early date, and report on the condition of the State Insane Asylum located at that place.

Drs. Ruggles and Laine were appointed a committee to obtain data

with reference to pollution, by sewage or otherwise, of the waters of the larger rivers in the northern part of the State, and to formulate a report on the subject.

The Board then adjourned.

APRIL 16, 1896.

Regular meeting of the State Board of Health, at Los Angeles. The Board proceeded to Indio, there being present Drs. Davisson, Ruggles, Wiard, and Laine, with Dr. W. G. Cochran by invitation.

APRIL 17, 1896.

The Board proceeded to Cabazon Station, and inspected the railroad spur and water pipe-line, with four faucets attached, for permanent quarantine station, and returned to Los Angeles.

APRIL 18, 1896.

The Board proceeded to San Diego, to inspect the Government quarantine plant at its station, but as it is as yet in an incomplete state, no detailed description is attempted.

The Board returned to Los Angeles to attend the Fourth Annual State Sanitary Convention on the 20th.

APRIL 20, 1896.

The Board met in attendance on the State Sanitary Convention. Present: Drs. Davisson, Ruggles, Wiard, Remondino, and Laine. An extended program of valuable papers was read and referred to the Committee on Publication, with instructions to have them printed in the Fourteenth Biennial Report of the State Board of Health.

Dr. J. H. Davisson was elected President of the State Sanitary Convention, and Dr. Thomas Ross, Secretary.

APRIL 22, 1896.

The Board met at the rooms of the Governor, at the Nadeau House, Los Angeles, agreeable to appointment. There were present Drs. Davisson, Wiard, Ruggles, Remondino, and Laine.

The Governor expressed the opinion that the statutes would enable the Board to declare the required cattle quarantine and would provide for the payment of inspectors to guard the lines and make the necessary investigations to ascertain how much territory was infected. He advised that the Board consult the Attorney-General.

APRIL 23, 1896.

The quarterly meeting of the State Board of Health was held in Los Angeles, at the office of Dr. Davisson. Present: Drs. Davisson, Wiard, Ruggles, Remondino, and Laine.

On motion of Dr. Remondino, the spur-track, pipe-line, and land at Cabazon Station were accepted, and the bills for construction and purchase were ordered paid, as per contract.

A letter relating to an alleged spring of water near San Diego, said to make hair grow on bald heads, was referred to Dr. Remondino.

The Secretary was directed to take the necessary steps to prevent pollution of rivers by sewage.

The Secretary was instructed to continue the purchase of diphtheria antitoxine from Parke, Davis & Co., of Detroit, Michigan; also, to supply Drs. Nutting and Remondino with syringes for antitoxine.

All bills incurred in holding the Sanitary Convention were ordered paid.

Drs. Ruggles and Laine reported having visited the Mendocino State Asylum on February 17, 1896, and that everything was in excellent sanitary condition.

The Board proceeded to elect officers for the ensuing year. Dr. W. F. Wiard was unanimously elected President, and Dr. J. R. Laine Secretary.

On motion of Dr. Ruggles, Dr. J. R. Davisson was tendered a vote of thanks for the many courtesies extended to the Board during its meeting at Los Angeles.

Drs. Ruggles, Wiard, and Laine were appointed a committee, with power to act, with reference to all matters relating to cattle quarantine, and to conduct investigations with reference to the existence of contagious diseases among cattle.

Drs. Ruggles and Laine, the Committee on Sacramento and American Rivers Pollution, submitted a report, which was ordered printed in the biennial report. It is as follows:

To the State Board of Health:

GENTLEMEN: Your committee, on March 9th, investigated the matter of river pollution by sewage, at Redding. By personal inspection it was ascertained that the sewage is carried out of the town by a twelve-inch pipe, when it falls into an open ditch running a quarter of a mile to a farm of sterile land, where it is used for irrigation and fertilization. In seasons of high water the sewage must necessarily find its way into the streams. The disposition of the Redding sewage is so far satisfactory, and commendable to that progressive city.

RED BLUFF.

An investigation was next made at Red Bluff. This beautiful town is admirably situated for drainage. The river at this point rushes madly by in a swirl that erodes the west bank into a lofty escarpment of reddish clay, which gives the town its name. An easy grade carries all surface water to the river by natural easement. The sewage of about nine blocks is run into the river by twelve-inch pipes. The remainder of the city has no sewers.

The quantity of sewage discharged into the river at this point is not sufficient to injure the water taken for municipal use below. The racing swiftness of the stream comminutes it, and long before it reaches any point where water is taken for household uses the sewage has become oxidized and destroyed. It is only when disease germs, such as those of typhoid fever and cholera, pass through the sewers into the river that fears may rightfully be entertained of contamination of the river by Red Bluff sewage in its present condition.

CHICO.

It was next ascertained that Chico has no system at all. Provision has been made for easement of storm water, but the need for an adequate sewer system has not yet been brought home to the people of Chico. The facilities are ample. There is sufficient grade to poor lands down-stream which could be fertilized to great profit by the sewage of the town. Here are all the evidences of an easy prosperity. The water is lifted from wells that have no surface contamination, and the result is an absence of typhoid fever. When Chico awakens to the abolishment of her vile cesspools and constructs a comprehensive system of sewers, she will treble her population and double her money value. The soil is rich and porous. Little effort is needed to dispose of accumulations of years.

The soil becomes saturated in limited areas. The cesspool or fecal odor is prevalent. This is not only disagreeable, but is also productive, in a region where more or less malaria exists, of various disorders. Yet Chico is a comparatively healthy town. This may be attributed to a good water-supply.

MARYSVILLE.

This historical city is most unfortunately situated, being at the confluence of two streams, each bearing torrents of sand and debris from the mines situated eastward. Her once rich orchards are covered fathoms deep by rolling sand dunes. Where once were fertile soil, rich gardens, and stately fruit trees, is now seen the wild willow struggling in the sand. It is a scene that impresses one with a depressing sense of destruction and desolation.

Yet, strange as it may appear, Marysville is a progressive city. She is the only town north of Sacramento which has of late years increased in population. She is walled in by protecting levees to guard against the mad rush of winter floods. Her streets are below the high river-beds. All of her storm water is pumped over her levees. Provision has been made for the collection of storm water, but none for sewage, except in one instance, and this is available only during low water.

The abominable cesspool system is in vogue, though an attempt to inaugurate the dry-earth system has been made. Yet the city is healthy. This is explained by the fact that excellent water is obtained from deep wells in the heart of the city. Here, as in all cities obtaining water incapable of contamination at its source, typhoid fever is notably absent. But the cesspool and fecal odor is here. When the rains come the cesspools are flooded, and the contents float to the surface of the ground and under houses. The hot sun then comes to desiccate and disinfect, but the emanations are nevertheless a nuisance that gives rise to offensive effluvium.

Marysville has no great engineering difficulties to overcome in order to effectually dispose of her sewage. A pit, or several pits, should be sunk deep enough to make a sufficient grade for all the city sewage. The pit, or pits, should be cemented to prevent seepage. All sewage proper should be conducted to this point, when it should be pumped into a pipe resting on a bridge across the old channel of the Yuba River, flowing by gravity to the sands on the other side, where Chinese gardeners would gladly utilize it on gardens. The storm water should be treated as at present. The two should not run together.

The sloughs inside the city limits are being filled, the streets are clean, and there is an air of neatness and comfort in the city, in wide contrast with the devastation by sand and water contiguous to it.

COLUSA.

We append hereto a letter from Colusa, relating to the disposal of sewage at that point:

"I give the following answers to your questions:

"First—We have no sewer system. We have shallow ditches, some of which are lined with plank, to convey the rainwater out of town.

"Second—Our drainage is away from the river. We have a fall of eight feet to the mile. All drainage runs to the south from the river and the town.

"Third—There are no private sewers discharging into the river at this point.

"I am considering what to do with the garbage. I am thinking over the crematory idea. This is a problem with small as well as large towns."

The above is an extract from a letter from Dr. J. S. West, Health Officer of Colusa.

EFFECT ON THE RIVER.

From the foregoing it may be inferred that we do not regard the river pollution by these towns on the Sacramento River and its tributaries as serious. This would not be precisely consonant with the facts. The distance between the towns taking water from the river, the swiftness of the streams, and several other factors, prevent the sewage from producing appreciable bad effects. In case, however, that typhoid fever or cholera were to prevail at any of these points, or on the tributaries of streams flowing into the Sacramento River, the result might be very fatal to life. This would be worse after the first rains in autumn, when the surface filth is quickly washed into the streams, creating an abnormal quantity of organic impurities, in which disease germs multiply rapidly and infinitely.

The situation at Sacramento with reference to water from the Sacramento River has to be considered separately.

In addition to any impurities that may reach the rivers from towns on the main streams or its tributaries, it is largely polluted by the outflow from the broad tule basins, comprising thousands of acres of overflowed lands having considerable depth of water in places. These basins do not begin to fall until the season is well advanced. Great numbers of fishes go into these basins to spawn, and when the warm weather comes on myriads of them die. There are numerous alfalfa fields around these low lands, and great numbers of hogs. When hog cholera prevails the carcasses of the dead hogs are thrown into the water and lazily float into the river. Several hundred of these carcasses have been seen resting on sandbars in the river during hot weather. Later in the summer the water that runs out of the tule basins is greenish in color. This pollution can scarcely be abated by the State.

FOLSOM PRISON

Pours its sewage directly into the American River, twenty-two miles above Sacramento, and the town of Folsom, two miles below the prison, disposes of its sewage in the same manner. The American River is a rapid but shallow stream, that empties into the Sacramento River less than half a mile above the intake of the Sacramento water-supply.

The sewage of convicts and the people of Folsom in a shallow, warm stream, which furnishes none too much dilution of sewage, must be more palatable than it might seem, for the citizens of Sacramento seem to prefer it to the available deep-well water contiguous to them. Add this diluted sewage of the American River to the water from the tule basins, in warm weather when it smells badly, and it makes a combination or culture fluid for disease germs which would enable them to multiply infinitely and jeopardize many lives.

DEEP-WATER WELLS.

Dr. W. A. Briggs, of Sacramento, has recently informed us that the result of a number of analyses made by him when the Sacramento River was low, showed an excess of albuminous substances from eight to nineteen times above normal. Such an excess of organic impurities cannot be poohpoohed or argued away by those who adhere to the ancient notion that running streams always purify themselves, no matter what degree of pollution may exist. They do not seem to comprehend the possibility of a degree of impurities which cannot be oxidized in a limited body of water, and in limited time and agitation.

There is an abundance of very excellent water to be obtained from deep wells, both within and just without the Sacramento City limits. This water rises nearly to the surface, and would cost no more to lift it than it costs to lift from the river. To obtain water from such a source would place Sacramento beyond the necessity of complaining of towns up-stream for polluting the river with their sewage, and would make it, moreover, safe from typhoid fever, cholera, and malarial fever germs, which are recognized as water-born diseases.

C. A. RUGGLES, M.D.,
J. R. LAINE, M.D.,

Committee on Sacramento and American Rivers Pollution.

The Board then adjourned.

J. R. LAINE, M.D.,
Secretary.

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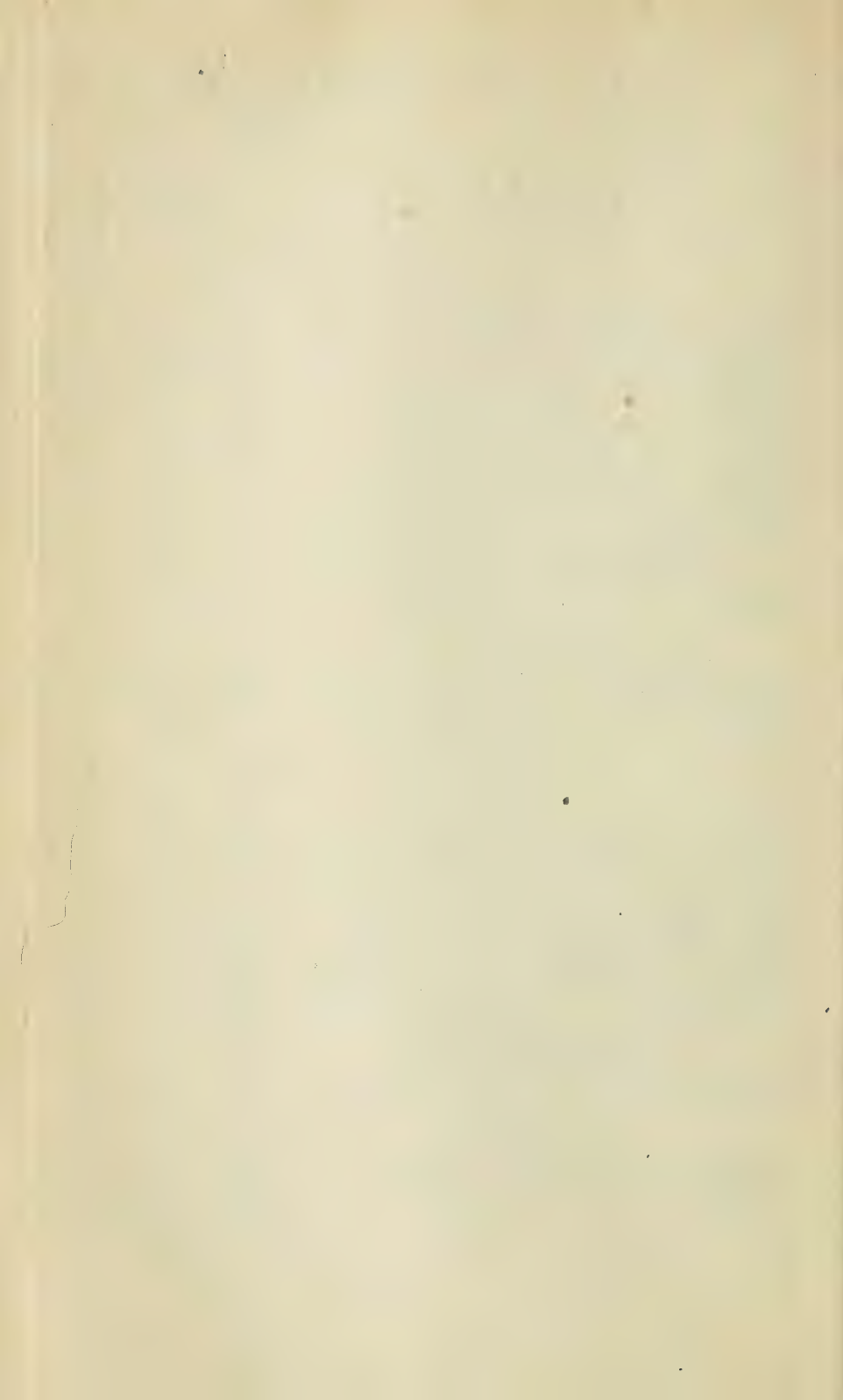
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SECRETARY'S REPORT.

To the State Board of Health:

GENTLEMEN: The reprinting of the monthly reports of the State Board of Health is done to enable any one to review the reports from different localities, and to compare the monthly report with the official report of twenty-five counties condensed into the subjoined tables.

It is unnecessary to write out the totals of mortality for the two years from any one cause, as a glance at the tables will show the exact figures, so far as they have been collected. The monthly circular will also aid.

It will, in my opinion, be necessary to invoke legislative aid to enforce the law with reference to the collection of vital statistics. No reports have been received from thirty-two counties. The Recorders of these delinquent counties are liable to a fine for each neglect, but the Board of Health cannot force them to report nor have them fined, unless the District Attorneys proceed against them.

I have prepared no tables of births and marriages, owing to the incompleteness of the reports received.

I have published circular No. 5, on "Consumption (Pulmonary Tuberculosis); Its Restriction and Prevention," which will be found in this report, and have incorporated in this report a very comprehensive paper: "A Study of Milk in Relation to Health and Disease," by Dr. George M. Kober, of Fort Bidwell, Cal. The financial report is hereto appended, and there is added the transactions of the Fourth Annual Sanitary Convention.

Very respectfully,

J. R. LAINE, M.D.,
Secretary.

FINANCIAL STATEMENT.

ACCOUNT CONTAGIOUS AND INFECTIOUS DISEASES.

Forty-sixth Fiscal Year, ending June 30, 1895.

Unexpended balance from forty-fifth fiscal year.....		\$49,630 52
1894—July 12—Controller's warrant No. 260	\$25 00	
Aug. 1—Controller's warrant No. 1126	18 00	
Aug. 9—Controller's warrant Nos. 1313-1314	133 20	
Aug. 18—Controller's warrant No. 1651	25 00	
Oct. 2—Controller's warrant No. 3163	12 00	
Nov. 2—Controller's warrant No. 4291	295 00	
1895—Jan. 7—Controller's warrant Nos. 6979-6981	682 73	
Apr. 25—Controller's warrant No. 16026	14 00	
Apr. 25—Controller's warrant No. 16036	12 65	
June 4—Controller's warrant Nos. 17469-17471	145 75	
June 29—Controller's warrant No. 18146	11 85	
Unexpended balance	48,255 34	
		\$49,630 52

Forty-seventh Fiscal Year, ending June 30, 1896.

Unexpended balance from forty-sixth fiscal year		\$48,255 34
1895—July 16—Controller's warrant Nos. 127-128	\$565 48	
July 27—Controller's warrant No. 731	286 00	
Sept. 7—Controller's warrant No. 3729	290 85	
Sept. 7—Controller's warrant No. 3741	18 77	
Sept. 21—Controller's warrant No. 4595	16 00	
Sept. 28—Controller's warrant No. 5026	40 00	
Oct. 21—Controller's warrant No. 6841	287 00	
Oct. 23—Controller's warrant No. 6950	260 58	
Nov. 9—Controller's warrant No. 7747	163 43	
1896—June 25—Controller's warrant No. 16922	3,010 00	
Unexpended balance	43,317 23	
		<u>\$48,255 34</u>

ACCOUNT TRAVELING AND CONTINGENT EXPENSES.

Forty-sixth Fiscal Year, ending June 30, 1895.

Appropriation March 25, 1893		\$1,500 00
Unexpended balance from forty-fifth fiscal year		404 37
		<u>\$1,904 37</u>
1894—July 12—Controller's warrant Nos. 258-259	\$96 85	
Aug. 9—Controller's warrant Nos. 1311-1312	69 10	
Aug. 18—Controller's warrant No. 1652	12 50	
Sept. 13—Controller's warrant No. 2469	24 35	
Sept. 13—Controller's warrant No. 2470	37 10	
Oct. 3—Controller's warrant No. 3218	79 15	
Oct. 20—Controller's warrant No. 3703	50 20	
Oct. 25—Controller's warrant No. 4033	52 40	
Nov. 2—Controller's warrant No. 4290	52 65	
Nov. 15—Controller's warrant No. 4729	31 20	
Dec. 3—Controller's warrant Nos. 5604-5605	57 75	
Dec. 17—Controller's warrant No. 6081	31 65	
1895—Jan. 7—Controller's warrant No. 6081	39 15	
Feb. 21—Controller's warrant Nos. 11395-11397	114 40	
Mar. 22—Controller's warrant Nos. 14321-14324	130 50	
Apr. 23—Controller's warrant No. 15985	35 60	
May 11—Controller's warrant Nos. 16570-16572	111 50	
May 17—Controller's warrant Nos. 16673-16674	100 45	
May 23—Controller's warrant Nos. 16921-16922	55 93	
June 4—Controller's warrant Nos. 17472-17473	41 15	
June 22—Controller's warrant Nos. 18096-18100	332 15	
Unexpended balance	348 64	
		<u>\$1,904 37</u>

Forty-seventh Fiscal Year, ending June 30, 1896.

Appropriation March 28, 1895		\$1,500 00
1895—Aug. 3—Controller's warrant Nos. 1473-1475	\$113 27	
Aug. 3—Controller's warrant Nos. 1476-1477	96 35	
Sept. 21—Controller's warrant No. 4596	47 60	
Sept. 28—Controller's warrant No. 5027	39 80	
Sept. 28—Controller's warrant Nos. 5029-5032	105 45	
Oct. 21—Controller's warrant Nos. 6842-6843	62 50	
Oct. 25—Controller's warrant Nos. 6923-6924	49 00	
Nov. 4—Controller's warrant No. 7638	41 70	
Dec. 14—Controller's warrant No. 10172	33 65	
1896—Jan. 4—Controller's warrant No. 11007	39 65	
Feb. 10—Controller's warrant Nos. 12318-12319	79 72	
Feb. 13—Controller's warrant No. 12401	78 40	
Feb. 17—Controller's warrant No. 12452	38 65	
Feb. 25—Controller's warrant No. 12760	28 85	
Mar. 2—Controller's warrant No. 13082	32 00	
Mar. 23—Controller's warrant No. 13716	50 90	
Mar. 30—Controller's warrant No. 13733	69 45	
Apr. 6—Controller's warrant No. 14289	35 70	
May 11—Controller's warrant Nos. 15415-15417	299 30	
May 19—Controller's warrant No. 15761	130 90	
Unexpended balance	27 16	
		<u>\$1,500 00</u>

ACCOUNT PURCHASE AND MANUFACTURE OF DIPHTHERIA ANTITOXINE.

Forty-sixth Fiscal Year, ending June 30, 1895.

Appropriation March 12, 1895		\$6,000 00
1895—May 11—Controller's warrant No. 16569	\$106 80	
May 17—Controller's warrant No. 16675	168 64	
Unexpended balance	5,724 56	
		<hr/> \$6,000 00

Forty-seventh Fiscal Year, ending June 30, 1896.

Unexpended balance from forty-sixth fiscal year		\$5,724 56
1895—July 16—Controller's warrant No. 126	\$127 20	
Aug. 3—Controller's warrant No. 1478	103 85	
Sept. 28—Controller's warrant No. 5028	15 50	
Oct. 21—Controller's warrant No. 6840	100 30	
Nov. 19—Controller's warrant No. 8324	100 15	
Dec. 14—Controller's warrant No. 10171	100 80	
1896—Jan. 4—Controller's warrant No. 11019	104 90	
Jan. 21—Controller's warrant No. 11533	202 15	
Feb. 10—Controller's warrant No. 12309	2 50	
Feb. 17—Controller's warrant No. 12451	102 70	
Mar. 23—Controller's warrant No. 13715	114 10	
Apr. 11—Controller's warrant No. 14327	102 10	
June 23—Controller's warrant No. 16892	30 50	
Unexpended balance	4,517 81	
		<hr/> \$5,724 56

ABSTRACT FOR JULY, 1894—Continued.

Cities and Towns.																								Totals
	Estimated Popula- tion	Total Deaths	Consumption	Acute Pneumonia.	Acute Bronchitis.	Congestion of the Lungs	Diarrhœa and Dys- entery	Cholera Infantum.	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlet Fever	Measles.	Smallpox.	Whooping-Cough	Typhoid Fever	Remittent and In- termittent Fevers	Cerebro - Spinal Fever.	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes.	
Redlands and vicinity	3,600	8	2	--	--	--	--	1	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	
Rio Vista and vicinity	1,800	7	--	--	--	--	--	3	2	--	--	--	--	--	--	1	--	--	--	--	--	--	--	
Sacramento	30,000	33	6	--	--	--	--	2	2	--	1	--	--	--	--	--	--	2	1	--	--	--	3	
San Bernardino	8,500	11	3	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	18	
San Diego	18,000	11	2	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	2	
San Francisco	330,000	489	79	28	18	7	2	8	43	1	--	1	1	1	3	8	47	3	17	1	1	1	219	
San José	25,000	20	4	2	--	--	1	1	--	--	--	--	--	--	1	1	1	--	--	--	--	--	5	
San Luis Obispo	3,000	7	2	--	--	--	--	--	1	--	--	--	--	--	1	1	--	--	--	--	--	--	3	
San Pedro	1,250	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Santa Ana and vicinity	10,000	15	4	--	--	--	--	--	2	--	--	--	--	--	--	1	2	1	--	--	--	--	8	
Santa Barbara	5,864	10	1	2	--	--	--	--	--	--	--	--	--	--	--	1	1	1	--	--	--	--	3	
Santa Maria	1,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Santa Rosa	5,216	6	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	3	
Santa Paula and vicinity	2,000	7	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Sausalito	1,200	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	
Stockton	17,000	16	6	--	1	--	--	1	1	--	--	--	--	--	1	1	1	1	--	--	--	--	5	
St. Helena and vicinity	2,000	4	1	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Solano County, District No. 2	2,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	
Soquel	250	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Tehama	350	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Truckee and vicinity	1,300	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	
Tulare City	4,000	4	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Upper Lake	300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	
Vallejo	6,000	7	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	3	
Vacaville and vicinity	4,500	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	1	
Watsonville and vicinity	3,000	2	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	
Williams	600	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Woodbridge	300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Totals	777,020	961	147	45	26	9	10	25	84	4	2	2	1	0	4	4	28	4	28	4	88	8	434	

There were 163 deaths from consumption, 41 from pneumonia, 26 from bronchitis, 5 from congestion of the lungs, 16 from diarrhoea and dysentery, 23 from cholera infantum, 94 from other diseases of the stomach and bowels, 9 from diphtheria, 7 from croup, 1 from scarlatina, 6 from whooping-cough, 33 from typhoid fever, 5 from malarial fevers, 7 from cerebro-spinal fever, 35 from cancer, 4 from erysipelas, 76 from diseases of the heart, 6 from alcoholism, and 445 from other causes, 1 of which was from la grippe, 1 from sunstroke, and 1 from heat exhaustion.

Whooping-cough is epidemic at Napa and Etna Mills.

Cities and Towns.

[illegible]

[illegible]

SEPTEMBER, 1894.

Reports from 78 cities, towns, villages, and sanitary districts, aggregating a population of 760,875, show a mortality of 957—a death-rate of 1.25 per 1,000 for September, or 15.00 per 1,000 per annum.

There were 145 deaths from consumption, 47 from pneumonia, 20 from bronchitis, 4 from congestion of the lungs, 25 from diarrhoea, 47 from cholera infantum, 61 from other diseases of the stomach and bowels, 4 from diphtheria, 12 from croup, 1 from scarlatina, 3 from measles, 3 from whooping-cough, 33 from typhoid fever, 5 from malarial fevers, 10 from cerebro-spinal fever, 23 from cancer, 3 from erysipelas, 75 from diseases of the heart, 12 from alcoholism, 418 from other causes, 1 of which was from la grippe.

PREVAILING DISEASES.

Reports from 46 localities outside of the larger cities and towns give 23 cases of pneumonia, 57 of bronchitis, 24 of pleurisy, 14 of congestion of the lungs, 151 of diarrhoea, 27 of dysentery, 23 of cholera morbus, 33 of cholera infantum, 6 of diphtheria, 12 of croup, 9 of measles, 38 of whooping-

[illegible]

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during October, 1894.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlet Fever	Measles	Smallpox	Whooping-Cough	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fevers	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	14,000	13	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	7
Anaheim and vicinity	5,000	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Antioch and vicinity	3,000	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Arbuckle	500	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Berkeley	10,000	14	3	-	-	1	1	1	2	-	-	-	-	-	1	-	-	-	1	-	-	-	1
Bishop and vicinity	1,500	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calico	500	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colton and vicinity	2,000	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Concord	500	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
College City	700	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cottonwood and vicinity	1,250	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cloverdale	1,200	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Chico and vicinity	8,890	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Dixon and vicinity	2,500	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Downieville	800	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Downey and vicinity	2,500	7	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Elk Grove	1,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Fallbrook and vicinity	1,200	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fort Bidwell and vicinity	1,500	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fresno	10,000	8	1	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	3
Fresno Flats	600	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Folsom	2,500	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Grass Valley and vicinity	7,000	8	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	4
Gridley	2,500	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Highland and vicinity	1,700	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isleton	800	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Knights Ferry	1,500	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lockeford	1,000	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Long Beach and vicinity	2,000	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Livermore and vicinity	2,500	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Livermore	1,000	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Lincoln	1,000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Lodi and vicinity	2,000	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Los Angeles	75,000	101	21	2	-	-	1	4	12	11	-	-	-	-	-	-	6	-	-	-	-	-	31

[illegible]

ABSTRACT FOR DECEMBER, 1894—Continued.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum.	Other Diseases of Stomach & Bowels	Diphtheria	Croup	Scarlet Fever	Measles	Smallpox	Whooping-Cough	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fevers	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Santa Ana and vicinity	10,000	11	1	2	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	1	--	6
Santa Barbara	5,861	7	1	2	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Santa Rosa	5,216	6	4	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Santa Maria	1,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Sausalito	1,200	3	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Selma	1,500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Sierra Valley	1,000	3	1	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Sisson	1,000	2	--	1	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Stockton	17,000	19	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12
Suisun and vicinity	2,500	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Truckee	1,300	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Tulare City	3,000	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Upper Lake	300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Yacaville and vicinity	4,500	4	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Watsonville	3,000	3	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Woodland	3,500	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Totals	791,223	1,061	180	110	32	14	5	12	67	18	11	1	2	0	2	36	3	5	39	0	70	10	444

JANUARY, 1895.

Reports from 69 cities, towns, villages, and sanitary districts, aggregating a population of 705,473, show a mortality of 1,074—a death-rate of 1.52 per 1,000 for January, or 18.24 per 1,000 per annum.

There were 202 deaths from consumption, 67 from pneumonia, 29 from bronchitis, 11 from congestion of the lungs, 4 from diarrhoea, 1 from cholera infantum, 62 from other diseases of stomach and bowels, 12 from diphtheria, 3 from croup, 3 from scarlatina, 2 from measles, 4 from whooping-cough, 29 from typhoid fever, 3 from malarial fever, 49 from cancer, 4 from erysipelas, 108 from diseases of the heart, 8 from alcoholism, 467 from other causes, 3 of which were from la grippe and 1 from leprosy.

PREVAILING DISEASES.

Reports from 39 localities outside of the larger cities and towns give 45 cases of pneumonia, 161 of bronchitis, 30 of pleurisy, 9 of congestion of the lungs, 47 of diarrhoea, 8 of dysentery, 6 of cholera morbus, 1 of cholera infantum, 11 of diphtheria, 13 of croup, 20 of scarlatina, 57 of measles, 7

of whooping-cough, 125 of la grippe, 32 of typhoid fever, 97 of malarial fevers, 5 of cerebro-spinal fever, 19 of erysipelas, 84 of rheumatism, 123 of neuralgia, 91 of tonsillitis, and 34 of pharyngitis.

Measles were epidemic at Lakeport, North Pasadena, and Kelseyville. Chicken-pox was epidemic at Truckee, and mumps at Santa Maria.

THIRD ANNUAL STATE SANITARY CONVENTION.

The third annual State Sanitary Convention will be held in San Francisco in April, on the day previous to the meeting of the State Medical Society. An earnest invitation is extended to the health officials of the towns and cities in the State, and to the entire medical profession, and to others that may be interested in sanitary work.

Short papers on subjects relating to local sanitary matters will be cordially welcomed, while a general request is made for treatises on any subject relating to preventive medicine.

The papers read at the last convention have been in active demand all over the United States, and have been largely reprinted. Another notice will be given fixing the place of meeting, and in the meantime those who desire to present papers should send in the title and probable time required to read them.

Owing to the limited time for holding the convention (one afternoon and evening), the number of papers will be limited to fifteen, with the hope that in this instance a greater number of subjects will be covered.

Titles should be promptly forwarded to the Secretary of the State Board of Health.

IMPURITIES IN MILK.

So much has been urged to guard against impurities in milk that it may not be inappropriate to mention in substance a measure that St. Louis proposes. That municipality issues a license to vendors of milk, which stipulates that the right is reserved to inspect the dairy and the methods of caring for animals, and the right also to revoke the license if the condition of the cows and care of the dairy do not meet the requirements of the inspector of the Board of Health. In this way the local Board of Health can exercise supervision over dairies any distance from the city, and if tuberculous cows are found in the herd, may insist that they be removed or the license to bring milk into the city be revoked.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during January, 1895.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia.	Acute Bronchitis.	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum.	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlet Fever	Measles	Smallpox	Whooping-Cough	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fevers	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alturas	550	0																					5
Alameda	14,000	14	4	1					1												3		2
Anaheim and vicinity	5,000	3																					1
Anderson	1,000	1																					
Arbuckle	500	0																		1			
Azusa and vicinity	2,500	3														1							1

	21	11	--	--	1	--	--	--	--	--	1	--	--	1	--	3	--	4
Pasadena and vicinity	9,500	3	2	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Petaluma and vicinity	8,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Palo Alto	1,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pomona and vicinity	5,000	5	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pleasanton	2,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,600	7	5	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rio Vista and vicinity	2,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sacramento	30,000	38	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Bernardino	8,500	9	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Diego	16,153	20	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Francisco	330,000	547	105	39	22	8	2	1	33	2	1	--	1	--	1	34	2	58
San José	25,000	29	8	--	--	--	--	--	--	--	--	--	--	--	--	3	2	13
San Luis Obispo	4,000	6	2	--	--	--	--	--	--	--	--	--	--	--	--	1	--	3
San Rafael	3,800	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Santa Ana and vicinity	10,000	16	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Santa Barbara	5,864	20	3	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Santa Clara	3,000	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Santa Maria	1,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Santa Rosa	5,216	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selma and vicinity	3,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sierra	1,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stockton	17,000	20	5	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
St. Helena and vicinity	2,000	3	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Truckee and vicinity	1,300	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tulare City	3,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tupper Lake	300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vacaville and vicinity	4,500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Watsonville and vicinity	3,000	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Williams	500	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Woodland	3,500	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Totals	705,473	1,074	202	67	29	11	4	1	62	12	3	2	0	4	29	3	6	49
																		8
																		467

FEBRUARY, 1895.

Reports from 69 cities, towns, villages, and sanitary districts, aggregating a population of 740,073, shows a mortality of 930—a death-rate of 1.21 per 1,000 for February, or 14.52 per 1,000 per annum.

There were 189 deaths from consumption, 81 from pneumonia, 35 from bronchitis, 6 from congestion of the lungs, 2 from diarrhea, 2 from cholera infantum, 61 from other diseases of stomach and bowels, 7 from diphtheria, 4 from croup, 1 from scarlatina, 1 from measles, 4 from whooping-cough, 22 from typhoid fever, 2 from malarial fevers, 9 from cerebro-spinal fever, 25 from cancer, 5 from croup, 90 from diseases of the heart, 364 from other causes, 3 of which were from la grippe.

Folsom	2,500	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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ABSTRACT FOR MARCH, 1895—Continued.

Cities and Towns.	Estimated Popula- tion	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis.	Congestion of the Lungs	Diarrhoea and Dys- entery	Cholera Infantum.	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlet Fever.	Measles.	Smallpox.	Whooping-Cough	Typhoid Fever	Remittent and In- termittent Fevers	Cerebro - Spinal Fevers	Cancer	Erysipelas	Heart Diseases	Alcoholism.	Other Causes.	
Merced	2,000	3	3	1	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	2	
Mariposa	1,000	2	2	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Madera	2,500	5	4	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Napa	7,000	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
National City	1,200	1	13	8	10	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	39	
Oakland	60,000	83	1	1	1	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
Oakland Township	10,000	7	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39	
Oceanside.	400	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
Ontario and vicinity.	3,000	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	
Pasadena and vicinity.	9,500	23	9	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Palo Alto.	1,000	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	
Pleasanton	2,000	3	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Redlands and vicinity.	3,500	10	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Rio Vista and vicinity	2,000	3	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Sacramento.	30,000	49	6	3	—	—	—	—	4	1	—	—	—	—	—	—	—	—	—	—	—	—	1	
San Bernardino	8,500	7	2	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
San Diego	16,153	18	4	3	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
San Francisco	330,000	609	109	98	30	6	2	4	31	—	2	—	—	—	—	—	—	—	—	—	—	—	3	
San José	25,000	26	8	2	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	6	
San Luis Obispo	4,000	6	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	
Santa Ana and vicinity	10,000	10	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Santa Barbara	5,864	13	4	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	3	
Santa Rosa	5,216	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	
Santa Paula and vicinity	2,000	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Selma and vicinity	3,000	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Sierra Valley and vicinity	1,000	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Stockton	17,000	18	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	
St. Helena and vicinity	1,800	2	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Truckee and vicinity	1,300	2	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Tulare City and vicinity	2,000	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Upper Lake	300	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Woodland	3,500	2	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Totals	752,823	1,132	212	142	51	10	4	10	55	6	2	3	4	0	1	1	14	1	12	45	0	103	2	455

APRIL, 1895.

Reports from 68 cities, towns, villages, and sanitary districts, aggregating a population of 769,109, show a mortality of 975—a death-rate of 1.26 per 1,000 for April, or 15.12 per 1,000 per annum.

There were 168 deaths from consumption, 77 from pneumonia, 34 from bronchitis, 7 from congestion of the lungs, 4 from diarrhoea, 4 from cholera infantum, 70 from other diseases of the stomach and bowels, 8 from diphtheria, 5 from measles, 1 from whooping-cough, 22 from typhoid fever, 1 from malarial fevers, 13 from cerebro-spinal fever, 48 from cancer, 2 from erysipelas, 82 from diseases of the heart, 1 from alcoholism, and 428 from all other causes, 14 of which were from la grippe.

PREVAILING DISEASES.

Reports from 40 localities outside of the larger cities and towns give 39 cases of pneumonia, 122 of bronchitis, 36 of pleurisy, 17 of congestion of the lungs, 75 of diarrhoea, 13 of dysentery, 8 of cholera morbus, 4 of cholera infantum, 7 of diphtheria, 12 of croup, 7 of scarlatina, 54 of measles, 21 of whooping-cough, 467 of la grippe, 9 of typhoid fever, 147 of malarial fevers, 1 of cerebro-spinal fever, 1 of erysipelas, 109 of rheumatism, 84 of neuralgia, 98 of consilits, and 66 of pharyngitis.

Measles were epidemic at Vallejo and National City. Whooping-cough was epidemic at Pomona.

DIPHTHERIA ANTITOXINE.

A sufficient supply of antitoxine has been obtained for general use by sanitary officers and the medical profession. It is free of charge. Requisitions by letter or wire should, when from cities and towns having Health Boards, be made through a sanitary officer; but all requisitions from legal practitioners will be promptly honored, the only return being data concerning its use.

Antitoxine may be obtained by addressing Dr. W. E. Wiard, Sacramento; Dr. C. A. Ruggles, Stockton; Dr. J. H. Davison, Los Angeles; Dr. P. C. Remondino, San Diego, and Dr. Winslow Anderson, San Francisco.

A prompt acknowledgment of the receipt of the packages should be made, with such data as will show by whom and upon whom it was administered, with previous condition and result.

SMALLPOX.

Southern California has been threatened with smallpox by way of the Mexican border of Arizona. There have been a number of deaths, but the inhabitants are being vaccinated and all necessary precautions have been taken by the authorities of the General Government, the Territorial officers, and also by the California State Board of Health. Inspectors have been on duty near Yuma, on either side of the Colorado River, for ten days or more. The latest advices would indicate that a further spread of the disease will be prevented. A general vaccination and re-vaccination is in order as the only sure preventive.

Cities and Towns.	Other Causes.....	Alcoholism.....	Heart Diseases	Erysipelas.....	Cancer	Cerebro - Spinal Fevers.....	Remittent and Intermittent Fevers.....	Typhoid Fever....	Whooping-Cough.....	Smallpox.....	Measles.....	Scarlet Fever.....	Croup.....	Diphtheria	Other Diseases of St'mach & Bow'ls.....	Cholera Infantum.....	Diarrhoea and Dysentery.....	Congestion of the Lungs.....	Acute Bronchitis..	Acute Pneumonia.....	Consumption.....	Total Deaths.....	Estimated Population.....	
Alameda	2	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	2	-	14	14,000	
Anaheim and vicinity.....	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	4	5,000	
Antioch and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3,000	
Arbutle.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	500	
Azusa and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2,600	
Berkeley.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	10,000	
Calico and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	500		
Colton and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2,500	
College City.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	700		
Chico and vicinity.....	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	8,890		
Davisville.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	1,000	
Dixon and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	2,500	
Downieville and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	800	
Downey and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2,500	
Etna Mills.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1,000	
El Monte and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	2,000	
Eureka and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3	5	7,800	
Fresno.....	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	8	1	10,000	
Fresno Flats.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	600	
Folsom.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2,500	
Grass Valley and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	7,000	
Girdley.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1,000	
Highland.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	1,700	
Knight's Ferry.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1,500	
Kelseyville and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	400	
Lockeford.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1,000	
Long Beach and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2,000	
Livermore.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2,500	
Lakeport.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1,200
Lodi and vicinity.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2,000
Los Angeles.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	4	119	75,000
Marysville.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	4	9	4,000
Merced.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	2,000	

County	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020	Total
Mariposa	1,000	1												1,000
Madera	2,500	3												2,500
Mentone	500	0												500
Monterey	3,000	1												3,000
Napa and vicinity	7,000	10												7,000
National City	1,200	1												1,200
Needles and vicinity	1,500	2												1,500
Oakland	65,000	71	10	8	2									65,000
Oroville	2,000	2												2,000
Ontario and vicinity	2,500	2												2,500
Pasadena and vicinity	9,500	15	7											9,500
Palo Alto	1,000	0												1,000
Petaluma and vicinity	8,000	6		1										8,000
Pomona and vicinity	5,000	6												5,000
Pleasanton	2,000	2												2,000
Redding and vicinity	3,000	8	5	1										3,000
Sacramento	30,000	39	6	4										30,000
San Bernardino	8,500	7	1	1										8,500
San Diego	16,153	20	2	1										16,153
San Francisco	330,000	469	81	37	26	5								330,000
San José	25,000	27	2	4										25,000
San Luis Obispo	4,000	11	3	1										4,000
San Pedro	1,250	1												1,250
San Rafael	3,800	4	2	1										3,800
Santa Ana and vicinity	15,000	8	1	1										15,000
Santa Rosa	5,216	7		1										5,216
Sausalito	1,200	0												1,200
Sierra Valley	1,000	0												1,000
Stockton	17,000	14	1											17,000
St. Helena and vicinity	2,500	8	2											2,500
Truckee and vicinity	1,300	0												1,300
Upper Lake	300	0												300
Vallejo	6,000	0												6,000
Watsonville and vicinity	3,000	2												3,000
Woodland	3,500	1												3,500
Totals	769,109	975	168	77	34	7	4	4	70	8	0	0	5	769,109

MAY, 1895.

Reports from 65 cities, towns, villages, and sanitary districts, aggregating a population of 746,923, show a mortality of 894—a death-rate of 1.15 per 1,000 for May, or 14.16 per 1,000 per annum.

There were 18.3 deaths from consumption, 52 from pneumonia, 28 from bronchitis, 6 from congestion of the lungs, 6 from diarrhoea, 9 from cholera infantum, 56 from other diseases of the stomach and bowels, 6 from diphtheria, 3 from croup, 1 from measles, 4 from whooping-cough,

Folsom.....	2,500	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Grass Valley and vicinity.....	7,000	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gridley.....	1,000	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Highland.....	1,700	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ione and vicinity.....	1,800	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Long Beach and vicinity.....	2,000	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Livermore.....	2,500	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lakeport.....	1,200	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Los Angeles.....	75,000	96	24	5	2	2	10	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Marysville.....	4,000	7	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Merced.....	2,000	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mariposa.....	1,000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Madera and vicinity.....	2,500	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Monterey.....	2,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
National City.....	1,200	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Needles and vicinity.....	1,000	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Oakland.....	60,000	64	11	5	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ontario and vicinity.....	2,500	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pasadena, South.....	1,000	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pasadena and vicinity.....	12,000	22	8	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Petaluma and vicinity.....	8,000	5	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pomona and vicinity.....	6,000	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pleasanton.....	2,000	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Redlands and vicinity.....	3,500	4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sacramento.....	30,000	38	8	3	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Bernardino.....	8,500	11	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Diego.....	16,153	20	3	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Francisco.....	330,000	426	84	28	21	2	3	25	4	1	-	-	-	-	-	-	-	-	-	-	-	
San José.....	25,000	18	3	3	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
San Luis Obispo.....	4,000	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Santa Ana and vicinity.....	10,000	10	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Santa Barbara.....	5,864	9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Santa Maria.....	1,000	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Santa Rosa.....	5,216	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sausalito.....	1,200	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sisson.....	1,000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stockton.....	17,000	10	1	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
St. Helena and vicinity.....	2,500	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Truckee and vicinity.....	1,300	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tulare City.....	2,000	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Upper Lake.....	300	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vallejo.....	7,000	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Watsonville and vicinity.....	3,000	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Totals.....	746,923	884	183	52	28	6	9	56	6	3	0	1	0	4	13	1	11	29	3	84	3	386

JUNE, 1895.

Reports from 60 cities, towns, villages, and sanitary districts, aggregating a population of 432,023, show a mortality of 465—a death-rate of 1.07 per 1,000 for June, or 12.84 per 1,000 per annum.

There were 104 deaths from consumption, 19 from pneumonia, 5 from bronchitis, 1 from congestion of the lungs, 5 from diarrhoea and dysentery, 18 from cholera infantum, 38 from other diseases of the stomach and bowels, 1 from diphtheria, 1 from croup, 3 from scarlatina, 1 from measles, 2 from whooping-cough, 7 from typhoid fever, 2 from malarial fevers, 3 from cerebro-spinal fever, 12 from cancer, 1 from erysipelas, 28 from diseases of the heart, 1 from alcoholism, and 212 from all other causes, 2 of which were from la grippe.

It will be noted that San Francisco, with its 330,000 population, has no report at this date for June, 1895, which in a measure alters the usual percentage of deaths, as well as making a large discrepancy in the population reported from.

PREVAILING DISEASES.

Reports from 28 localities outside of the larger cities and towns give 19 cases of pneumonia, 69 of bronchitis, 17 of pleurisy, 3 of congestion of the lungs, 75 of diarrhoea, 44 of dysentery, 20 of cholera morbus, 8 of cholera infantum, 5 of diphtheria, 4 of croup, 2 of scarlatina, 79 of measles, 57 of whooping-cough, 85 of la grippe, 26 of typhoid fever, 119 of malarial fevers, 1 of cerebro-spinal fever, 7 of erysipelas, 50 of rheumatism, 36 of neuralgia, 125 of tonsilitis, and 24 of pharyngitis.

Measles were reported epidemic at El Monte and Azusa; whooping-cough was epidemic at Fresno Flats, and mumps were reported as prevailing at Azusa.

The following chapter of the statutes enacted by the last Legislature is so important, as well as beneficent, that it is deemed best, in the interest of public health, to give it as wide publication as possible. It is not generally known that the Act included a penalty for the sale of milk from a diseased animal, but Section 3 (6), (5) explains that the sale of such milk makes the person guilty of a misdemeanor, and liable to a fine not exceeding \$100 nor less than \$25, or imprisonment in the county jail not exceeding 100 nor less than 30 days, or both.

Milk from cows afflicted with tuberculosis or any other disease comes under this statute.

CHAPTER LXXVI—AN ACT TO PROVIDE AGAINST ADULTERATION OF FOOD AND DRUGS.

[Approved March 26, 1895.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. No person shall, within this State, manufacture for sale, offer for sale, or sell any drug or article of food which is adulterated within the meaning of this Act.

SEC. 2. The term "drug," as used herein, shall include all articles used for food or drink by man, whether simple, mixed, or compound. The term "food," as used herein, shall be deemed to be adulterated within the meaning of this Act:

SEC. 3. Any article shall be deemed to be adulterated within the meaning of this Act:

(a) In the case of drugs: (1) If any substance or substances have been mixed with it, so as to lower or depreciate, or injuriously affect its strength, quality, or purity. (2) If any inferior or cheaper substance or substances have been substituted wholly or in part for it. (3) If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it. (4) If it is an imitation of, or is sold under the name of, another article. (5) If it consists wholly, or in part, of a diseased, decomposed, putrid, infected, tainted, or rotten animal or vegetable substance or article, whether manufactured or not; or in the case of milk, if it is the produce of a diseased animal. (6) If it is colored, coated, polished, or

powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is. (7) If it contains any added substance or ingredient which is poisonous or injurious to health. *Provided*, that the provisions of this Act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of food, if each and every package sold or offered for sale be distinctly labeled as mixtures or compounds, with the name and per cent of each ingredient therein, and are not injurious to health.

SEC. 4. Every person manufacturing, exposing or offering for sale, or delivering to a purchaser, any drug or article of food included in the provisions of this Act shall furnish to any person interested, or demanding the same, who shall apply to him for the purpose, and shall tender him the value of the same, a sample sufficient for the analysis of any such drug or article of food which is in his possession.

Sec. 5. Whoever refuses to comply, upon demand, with the requirements of section four, and whoever violates any of the provisions of this Act, shall be guilty of a misdemeanor, and shall be fined not exceeding one hundred nor less than twenty-five dollars, or imprisoned in the county jail not exceeding one hundred nor less than thirty days, or both. And any person found guilty of manufacturing, offering for sale, or reselling, an adulterated article of food or drug under the provisions of this Act shall be adjudged to pay, in addition to the penalties hereinbefore provided for, all the necessary costs and expenses incurred in inspecting and analyzing such adulterated articles of which said person may have been found guilty of manufacturing, selling, or offering for sale.

SEC. 6. This Act shall be in force and take effect from and after its passage.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns during June, 1895.

[illegible]

ABSTRACT FOR JUNE, 1895—Continued.

Cities and Towns.	Other Causes												
	1	2	1	1	37	3	3	24	6	1	4	1	1
Alcoholism	1	2	1	1	1	1	1	1	1	1	1	1	1
Heart Diseases	1	1	1	1	5	1	1	3	1	2	1	4	1
Erysipelas	1	1	1	1	1	1	1	1	1	1	1	1	1
Cancer	1	1	1	1	1	1	1	1	1	1	1	1	1
Cerebro-Spinal Fevers	1	1	1	1	1	1	1	1	1	1	1	1	1
Remittent and Intermittent Fevers	1	1	1	1	2	1	1	1	1	1	1	1	1
Typhoid Fever	1	1	1	1	2	1	1	1	1	1	1	1	1
Whooping-Cough	1	1	1	1	1	1	1	1	1	1	1	1	1
Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1
Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
Scarlet Fever	1	1	1	1	1	1	1	1	1	1	1	1	1
Croup	1	1	1	1	1	1	1	1	1	1	1	1	1
Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
Other Diseases of St'mach & Bow'ls	1	1	1	1	6	1	1	4	2	3	1	1	1
Cholera Infantum	1	1	1	1	4	1	1	4	1	1	1	1	1
Diarrhoea and Dysentery	1	1	1	1	1	1	1	1	1	1	1	1	1
Congestion of the Lungs	1	1	1	1	1	1	1	1	1	1	1	1	1
Acute Bronchitis	1	1	1	1	1	1	1	1	1	1	1	1	1
Acute Pneumonia	1	1	1	1	4	1	1	3	1	1	1	1	1
Consumption	1	2	1	1	29	1	1	8	1	1	1	1	1
Total Deaths	1	0	5	3	94	4	1	11	3	15	6	3	2
Estimated Population	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Fresno Flats	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Folsom	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Grass Valley and vicinity	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Gridley	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Higland	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Lockeford	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Livermore	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Lakeport	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Lodi and vicinity	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Los Angeles	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Marysville	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Merced	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Madera and vicinity	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Napa	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
National City	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Oakland	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Oakland Township	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Ontario and vicinity	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Pasadena and vicinity	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Palo Alto	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Pomona and vicinity	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Pleasanton	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Redlands and vicinity	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Sacramento	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
San Bernardino	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
San Diego	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
San Jose	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
San Luis Obispo	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
San Pablo	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
San Rafael	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Santa Ana and vicinity	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Santa Barbara	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000
Santa Rosa	600	2,500	7,000	700	1,700	1,000	2,500	2,000	80,000	4,000	2,000	2,500	7,000

[illegible]

JULY, 1895.

Reports from 64 cities, towns, villages, and sanitary districts, aggregating a population of 747,359, show a mortality of 977—a death-rate of 1.30 per 1,000 for July, or 15.60 per 1,000 per annum.

There were 198 deaths from consumption, 33 from pneumonia, 20 from bronchitis, 2 from congestion of the lungs, 7 from diarrhoea, 34 from cholera infantum, 63 from other diseases of the stomach and bowels, 1 from diphtheria, 4 from croup, 1 from scarlatina, 3 from measles, 3 from whooping-cough, 29 from typhoid fever, 4 from malarial fevers, 2 from cerebro-spinal fever, 38 from cancer, 1 from erysipelas, 82 from diseases of the heart, 4 from alcoholism, and 448 from all other causes, 4 of which were from la grippe and 1 from leprosy.

PREVAILING DISEASES.

Reports from 31 localities outside of the larger cities and towns give 2 cases of pneumonia, 43 of bronchitis, 7 of pleurisy, 5 of congestion of the lungs, 151 of diarrhea, 27 of dysentery, 36 of cholera morbus, 46 of cholera infantum, 2 of diphtheria, 1 of croup, 3 of scarlatina, 15 of measles, 15 of whooping-cough, 40 of la grippe, 21 of typhoid fever, 119 of malarial fevers, 7 of erysipelas, 78 of rheumatism, 35 of neuralgia, 48 of tonsillitis, 43 of pharyngitis, 10 of chicken-pox, and 1 of mumps.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during July, 1895.

Cities and Towns.		Deaths.		Population.	
		1890.	1891.	1890.	1891.
Alameda	15,000	13	0	15,000	1,000
Anderson	1,000	0	2	1,000	3,000
Benicia and vicinity	3,000	2	1	3,000	1,000
San Francisco	100,000	1,000	1,000	100,000	100,000
San Jose	10,000	10	10	10,000	10,000
Stockton	10,000	10	10	10,000	10,000
Vallejo	5,000	5	5	5,000	5,000
Other Causes					9
Alcoholism					1
Heart Diseases					1
Erysipelas					1
Cancer		1			1
Cerebro - Spinal Fevers					1
Remittent and Intermittent Fevers					1
Typhoid Fever					1
Whooping-Cough					1
Smallpox					1
Measles					1
Scarlet Fever					1
Croup					1
Diphtheria					1
Other Diseases of Stomach & Bowels		1			1
Cholera Infantum					1
Diarrhoea and Dysentery					1
Congestion of the Lungs					1
Acute Bronchitis					1
Acute Pneumonia					1
Consumption		2	1		1
Total Deaths		13	0		2
Estimated Population		15,000	1,000		3,000

ABSTRACT FOR JULY, 1895 Continued.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis..	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum.	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlet Fever	Measles.	Smallpox.	Whooping-Cough	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fevers	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Berkeley	10,000	10	1	1	1				1								1				1		4
Bishop and vicinity	2,000	3							1														2
Calico	500	0																					1
Colton and vicinity	2,500	2																		1	1		1
Concord	500	2	1						1														1
Chico and vicinity	8,890	3																					2
Dixon and vicinity	2,500	2																					1
Downeyville and vicinity	800	1	1																		1		1
Downey and vicinity	2,500	3																					1
Etna Mills and vicinity	1,000	2	1														1						1
El Monte and vicinity	2,000	2	2																				1
Fallbrook and vicinity	1,200	0																					1
Fresno Flats	600	3															1						3
Fresno	10,000	11	1														2				1		8
Folsom	1,960	3							2														1
Grass Valley and vicinity	7,000	8				1											1						2
Gridley	1,000	1																					1
Highland	1,700	0																					2
Lockeford	500	2																					1
Lakeport	1,200	1							1								1						2
Lodi and vicinity	1,500	1																					1
Los Angeles	80,000	96	25	1	3			1	5			1	2			2	1				14		41
Long Beach and vicinity	3,500	6						1	1							2							4
Marysville	4,000	5	1	1													2		1				4
Mariposa	1,000	1						1															1
Madera and vicinity	2,500	5						1															2
Monterey	2,000	0																					4
Napa	7,000	6		1			1													1	1		2
National City	1,200	1																					1
Nevada City	2,736	4						2															2
Needles and vicinity	1,500	2															2				1		1
Oakland	60,000	54	6	2					4											5			28
Ontario and vicinity	3,000	6	2						1														2

Pasadena and vicinity	9,500	16	4	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9
Pala Alto	1,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pomona and vicinity	6,000	7	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Pleasanton	2,000	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rio Vista and vicinity	2,000	7	--	--	1	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Selma and vicinity	5,000	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Sacramento	30,000	40	7	--	1	--	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24
San Bernardino	8,500	4	2	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
San Bernardo	16,153	12	2	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
San Diego	330,000	539	117	22	16	--	19	20	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	242
San Francisco	25,000	22	7	1	--	--	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
San José	4,000	9	--	1	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
San Luis Obispo	1,240	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
San Pedro	3,800	3	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
San Rafael	10,000	7	1	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Santa Ana and vicinity	5,864	7	2	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Santa Barbara	5,216	6	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Santa Rosa	2,000	2	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Santa Paula and vicinity	1,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Santa Maria	1,200	3	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Sausalito	1,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Sierra Valley	17,000	15	5	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
Stockton	2,500	3	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
St. Helena and vicinity	1,300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Truckee and vicinity	4,000	2	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Tulare City	300	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Upper Lake	3,000	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Watsonville and vicinity	747,359	977	198	33	20	2	7	34	63	1	4	1	3	0	3	29	4	2	38	1	82	4	448	
Totals																								

AUGUST, 1895.

Reports from 64 cities, towns, villages, and sanitary districts, aggregating a population of 778,017, show a mortality of 858—a death-rate of 1.10 per 1,000 for August, or 13.20 per 1,000 per annum.

There were 138 deaths from consumption, 30 from pneumonia, 16 from bronchitis, 7 from congestion of the lungs, 10 from diarrhoea, 23 from cholera infantum, 70 from other diseases of the stomach and bowels, 5 from diphtheria, 2 from croup, 2 from whooping-cough, 21 from typhoid fever, 7 from malarial fevers, 8 from cerebro-spinal fever, 31 from cancer, 2 from erysipelas, 70 from diseases of the heart, 2 from alcoholism, and 414 from all other causes.

PREVAILING DISEASES.

Reports from 32 localities, outside of the larger cities and towns, give 10 cases of pneumonia, 53 of bronchitis, 11 of pleurisy, 2 of congestion of the lungs, 164 of diarrhoea, 25 of dysentery, 30 of cholera morbus, 39 of cholera infantum, 6 of diphtheria, 6 of croup, 1 of measles, 32 of whooping-

cough, 44 of la grippe, 34 of typhoid fever, 150 of malarial fevers, 1 of cerebro-spinal fever, 7 of erysipelas, 82 of rheumatism, 41 neuralgia, 45 of tonsillitis, 37 of pharyngitis.

Chicken-pox was reported epidemic at Polson.

THE APPROACH OF ASIATIC CHOLERA.

On account of reports of cholera in China, Japan, and the Hawaiian Islands, the State Board deemed it advisable, at a special meeting held at San Francisco, September 30, to ask the General Government to declare a quarantine against all infected foreign ports, and enforce the quarantine laws, rules, and regulations of the United States against them. Such a request did not contemplate an interference with, or an infringement on the duties of local or municipal health and quarantine officials. The Secretary of the Treasury issues orders to United States Consular officers, and to medical officers serving at foreign ports, making publicly known the rules and regulations made by him to be used and complied with by vessels in foreign ports for securing the best sanitary condition of such vessels, their cargoes, and passengers, and crew, before their departure for any port in the United States, and in the course of the voyage; and all such other rules and regulations as shall be observed in the inspection of the same on the arrival thereof at any quarantine station at the port of destination, and for the disinfection and isolation of the same, and the treatment of cargo and persons on board, so as to prevent the introduction of cholera, yellow fever, or other contagious and infectious diseases.

The above is recited merely to show that the authority of the Government is extended far beyond the jurisdiction of a municipal quarantine, which cannot decree nor enforce rules and regulations in foreign ports, nor on board a vessel on its voyage.

The enforcement of regulations at the port of departure is regarded as more important, if anything, than the matter of quarantine at the port of destination, for if no contagious disease germs get aboard, there will be no quarantine to undergo when the vessel reaches port. While on this subject, it is interesting to note that the most advanced sanitary authorities in the United States lean in favor of governmental control of all international quarantine.

The *Texas Sanitarian*, in a recent number, makes an unanswerable argument in its favor. Michigan, Virginia, Tennessee, California, Ohio, and a number of other States have, through their officials, at various times, expressed views in favor of governmental control. It would seem to be the ideal quarantine, and would relieve States and municipalities of an enormous expense.

But there will be no clashing of authority in the event of cholera knocking at our doors. There will be harmonious action and a determination to prevent its entrance.

It is a good time for local boards to clean house by the removal of all unsanitary conditions in towns and villages, no matter how remote.

The following telegram was recently received from Washington:

"J. R. LAINE, M.D., *Secretary State Board of Health*, Sacramento, Cal.:

"Your telegram has been received. All ports on the Pacific Coast have been inspected by Marine Hospital officers this summer, and steps taken to perfect every quarantine deficiency.

"Consular reports from Honolulu verified presence of cholera; also, at Yokohama.

"All the information is in the weekly abstract sanitary reports, which all quarantine officers receive.

"Strict compliance with Treasury regulations will be insisted on both at foreign and domestic ports.

"September 4, 1895.

"WALTER H. WYMAN,
"Surgeon-General Marine Hospital Service."

It is found necessary to continue an inspector against smallpox near the Arizona border. It is propagated principally among Mexican inhabitants, near the Mexican border, and has prevailed all summer. It will require general vaccination to place our people in a condition of safety before the coming winter. An epidemic of smallpox is an expensive luxury, and no effort should be spared to evade it. Vaccination is surer than inspection and quarantine.

Cities and Towns.

Cities and Towns.	Other Causes.....	Alcoholism.....	Heart Diseases	Erysipelas	Cancer	Cerebro-Spinal Fevers.....	Remittent and Inter-mittent Fevers	Typhoid Fever	Whooping-Cough	Smallpox.....	Measles.....	Scarlet Fever.....	Croup	Diphtheria	Other Diseases of St'mach & Bow'ls	Cholera Infantum..	Diarrhoea and Dysentery.....	Congestion of the Lungs	Acute Bronchitis..	Acute Pneumonia.	Consumption	Total Deaths	Estimated Population
Alameda	1	-	-	-	1	-	-	1	-	-	-	-	-	-	1	-	-	1	-	-	2	9	15,000
Azusa and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2,000
Berkeley	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10,000
Bishop and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2,000
Calico.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	500
Concord	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	700
Colton and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2,500
College City	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	700
Cloverdale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1,000
Chico and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	9	8,890
Jay'sville	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1,000
Dixon and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2,500
Downieville and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	800
Downey and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	2,500
Etna Mills and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1,000
El Monte and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2,500
Fallbrook and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1,200
Fresno.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	9	10,000
Folsom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1,960
Grass Valley and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	11	7,000
Gonzales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1,000
Hillland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	1,700
Knight's Ferry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1,500
Lockeford	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	500
Long Beach and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3,500
Lakeport	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1,200
Lodi and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1,500
Los Angeles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	16	80,000
Marysville	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4,000
Mariposa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1,000
Madera and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	2,500
Napa and vicinity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	7,000
National City	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1,200

ABSTRACT FOR AUGUST, 1895.—Continued.

Cities and Towns.	Estimated Popu- lation	Total Deaths	Consumption	Acute Pneumonia.	Acute Bronchitis.	Congestion of the Lungs	Diarrhoea and Dys- entery	Cholera Infantum.	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlet Fever	Measles	Smallpox	Whooping-Cough	Typhoid Fever	Remittent and In- termittent Fevers	Cerebro - Spinal Fever.	Cancer	Erysipelas.	Heart Diseases	Alcoholism.	Other Causes	
Nevada City	2,736	0																					2	
Needles and vicinity	1,500	3																					27	
Oakland	60,000	46	5	2					4	1													2	
Oroville	2,000	2																					1	
Ottumwa and vicinity	3,000	3	1																				1	
Pasadena and vicinity	10,000	12	3				1		1														1	
Pleasanton	2,000	3																					1	
Red Bluff and vicinity	10,000	6																					3	
Redlands and vicinity	3,500	3							1														1	
Rio Vista and vicinity	2,000	1																					1	
Sacramento	30,000	44	12	1				2	4	1													1	
San Bernardino	8,500	7	1																				1	
San Diego	16,153	11	1						1														21	
San Francisco	330,000	438	65	21	11	5	5	12	35	1	1												205	
San Jose	25,000	24	4					2	1														17	
San Luis Obispo	4,000	6	1												1								4	
San Rafael	3,800	2	1						1														2	
Santa Ana and vicinity	10,000	12	2						1	2	1												4	
Santa Barbara	5,864	8	2																				1	
Santa Clara	3,000	3	1	1																			2	
Santa Cruz	5,594	4	1																				1	
Santa Maria	1,000	1																					1	
Selma and vicinity	3,000	1																					1	
SiSSon	1,000	1																					1	
Stockton	17,000	21	4				1		4														1	
St. Helena and vicinity	2,500	4	1						1														1	
Truckee and vicinity	1,300	0																					2	
Tulare City	2,000	5	1																				1	
Vallejo	7,000	4	1																				4	
Watsonville and vicinity	3,000	0																					3	
Williams	300	1																					1	
Totals	778,017	858	138	30	16	7	10	23	70	5	2	0	0	0	2	21	7	8	31	2	2	70	2	414

SEPTEMBER, 1895.

Reports from 59 cities, towns, villages, and sanitary districts, aggregating a population of 738,573, show a mortality of 868—a death-rate of 17 per 1,000 for September, or 14.04 per 1,000 per annum.

There were 122 deaths from consumption, 38 from pneumonia, 28 from bronchitis, 4 from congestion of the lungs, 7 from diarrhoea, 25 from cholera infantum, 70 from other diseases of the stomach and bowels, 4 from diphtheria, 7 from croup, 3 from whooping-cough, 25 from typhoid fever, 2 from malarial fevers, 6 from cerebro-spinal fever, 45 from cancer, 3 from erysipelas, 89 from diseases of the heart, 5 from alcoholism, and 85 from all other causes, 2 of which were from la grippe.

PREVAILING DISEASES.

Reports from 34 localities outside of the larger cities and towns give 6 cases of pneumonia, 61 of bronchitis, 19 of pleurisy, 9 of congestion of the lungs, 137 of diarrhoea, 20 of dysentery, 33 of cholera morbus, 23 of cholera infantum, 7 of diphtheria, 3 of croup, 11 of scarlatina, 12 of whooping-cough, 78 of la grippe, 40 of typhoid fever, 155 of malarial fevers, 1 of cerebro-spinal fever, 16 of erysipelas, 82 of rheumatism, 69 of neuralgia, 60 of tonsillitis, 33 of pharyngitis.

CHOLERA.

consults, 33 of pharyngitis. Chicken-pox was reported epidemic at San Rafael.

Reports from Honolulu indicate that cholera has been pretty effectually stamped out, though it is too soon to lift the quarantine. The development of an occasional new case now and then may be expected, and this expectation should lead to the observance of the same precautions which were found necessary during the crisis of danger, for any new case is liable to be the beginning of an epidemic. We may, however, anticipate our congratulations to the Islands, as showing another instance in which cholera is proven to be a preventable disease, susceptible of check and even destruction when handled with intelligence and determination.

SMALLER.

Dr. M. F. Price, who has been acting as Sanitary Inspector against smallpox, which has prevailed more or less on the Mexican border during the summer months, has been recalled, there being no urgent necessity for continued inspections. The disease, however, continues to smoulder near the border, the natives regarding it as of little importance, and it will require more than ordinary vigilance on the part of local Health Officials to prevent it from sneaking into thickly settled communities or villages and towns.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during September, 1895.

CITIES AND TOWNS.		DEATHS.		PER 1,000.	
Cities and Towns.	Estimated Population.	Total Deaths.	Consumption.	Acute Pneumonia.	Acute Bronchitis.
Alameda	15,000	10	-	1	1
Allegany	300	0	-	-	-
Antioch and vicinity	3,000	3	-	-	-
Yuba and vicinity	2,000	1	-	-	-

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OCTOBER, 1895.

Reports from 55 cities, towns, villages, and sanitary districts, aggregating a population of 746,220, show a mortality of 899—a death-rate of 1.20 per 1,000 for October, or 14.40 per 1,000 per annum.

There were 126 deaths from consumption, 54 from pneumonia, 8 from bronchitis, 3 from congestion of the lungs, 7 from diarrhoea and dysentery, 20 from cholera infantum, 84 from other diseases of the stomach and bowels, 5 from diphtheria, 2 from croup, 2 from scarlatina, 2 from whooping-cough, 18 from typhoid fever, 5 from malarial fevers, 6 from cerebro-spinal fever, 43 from cancer, 1 from erysipelas, 81 from diseases of the heart, 2 from alcoholism, and 430 from all other causes.

PREVAILING DISEASES.

Reports from 27 localities outside of the larger cities and towns give 12 cases of pneumonia, 77 of pleurisy, 9 of congestion of the lungs, 136 of diarrhea, 55 of dysentery, 26 of cholera morbus, 18 of cholera infantum, 2 of diphtheria, 4 of scarlatina, 10 of measles, 5 of whooping-cough, 109 of la grippe, 30 of typhoid fever, 162 of malarial fevers, 3 of cerebro-spinal fever, 8 of erysipelas, 56 of rheumatism, 16 of neuralgia, 50 of tonsillitis, and 37 of pharyngitis.

Chicken-pox was reported epidemic at Watsonville.

Ontario and vicinity	3,000	3	1	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--
Pasadena and vicinity	9,500	6	1	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Palo Alto	1,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Pomona and vicinity	6,000	7	4	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--
Pleasanton	2,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Red Bluff and vicinity	5,000	7	1	--	--	2	--	--	--	--	--	--	--	--	--	--	1	--
Redlands and vicinity	4,000	5	3	--	--	--	--	--	--	--	--	--	--	--	--	--	8	--
Sacramento	30,000	43	6	--	--	2	2	2	--	--	--	--	--	--	--	--	2	--
San Bernardino	8,500	10	1	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--
San Diego	20,000	15	3	1	--	--	--	--	--	--	--	--	--	--	--	--	2	--
San Francisco	330,000	496	92	27	17	8	4	3	30	1	1	--	7	1	1	28	58	5
San José	25,000	23	6	--	--	1	--	1	1	--	--	--	--	--	--	2	2	10
San Luis Obispo	4,000	11	4	--	--	1	--	--	--	--	--	--	--	--	--	2	4	4
Santa Ana and vicinity	15,000	10	1	--	1	--	--	--	--	1	--	--	--	--	--	1	1	6
Santa Barbara	5,864	12	1	--	--	--	--	--	3	--	--	--	--	--	--	2	2	2
Santa Rosa	5,216	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Santa Paula and vicinity	2,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Santa Maria	1,000	2	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Selma and vicinity	3,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sierra Valley	1,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stockton	17,000	19	5	1	--	--	--	1	1	--	--	--	--	--	--	1	3	1
St. Helena and vicinity	2,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	7
Truckee and vicinity	1,300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tulare City	2,000	7	2	--	--	--	--	--	--	--	--	--	--	--	--	--	2	3
Watsonville and vicinity	3,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Totals	744,579	1,000	171	55	23	12	6	11	63	6	3	0	0	0	2	17	4	10
																		48
																		9
																		441

DECEMBER, 1895.

Reports from 57 cities, towns, villages, and sanitary districts, aggregating a population of 773,370, show a mortality of 1,031—a death-rate of 1.33 per 1,000 for December, 1895, or 15.96 per 1,000 per annum.

There were 185 deaths from consumption, 85 from pneumonia, 25 from bronchitis, 9 from congestion of the lungs, 6 from diarrhoea and dysentery, 8 from cholera infantum, 68 from other diseases of the stomach and bowels, 9 from diphtheria, 9 from croup, 3 from whooping-cough, 20 from typhoid fever, 6 from malarial fevers, 3 from cerebro-spinal fever, 42 from cancer, 4 from erysipelas, 116 from diseases of the heart, 4 from alcoholism, and 429 from all other causes, 7 of which were from la grippe.

PREVAILING DISEASES.

Reports from 30 localities outside of the larger cities and towns give 43 cases of pneumonia, 117 of bronchitis, 20 of pleurisy, 27 of congestion of the lungs, 43 of diarrhoea, 7 of dysentery, 6 of cholera morbus, 6 of cholera infantum, 12 of diphtheria, 16 of croup, 8 of scarlatina, 115 of la grippe, 23 of typhoid fever, 99 of malarial fevers, 2 of cerebro-spinal fever, 13 of erysipelas, 62 of neuralgia, 76 of tonsillitis, and 74 of pharyngitis.

Whooping-cough was reported epidemic at Colton. Measles were epidemic at Santa Paula, and chicken-pox was reported epidemic at Red Bluff. One case of varioloid was reported at Madera.

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6—II

Totals

FEBRUARY, 1896.

Reports from 49 cities, towns, villages, and sanitary districts, aggregating a population of 722,470, show a mortality of 910—a death-rate of 1.25 per thousand for February, or 15.00 per thousand per annum.

There were 194 deaths from consumption, 69 from pneumonia, 22 from bronchitis, 8 from congestion of the lungs, 3 from dysentery, 3 from cholera infantum, 52 from other diseases of the stomach and bowels, 9 from diphtheria, 5 from croup, 2 from scarlatina, 1 from measles, 1 from whooping-cough, 14 from typhoid fever, 2 from malarial fevers, 4 from cerebro-spinal fever, 37 from cancer, 3 from erysipelas, 87 from diseases of the heart, 5 from alcoholism, and 389 from all other causes, 6 of which were from la grippe.

PREVAILING: PLASER.

Reports from 27 localities outside of the larger cities and towns give 48 cases of pneumonia, 99 of bronchitis, 40 of pleurisy, 26 of congestion of the lungs, 10 of diarrhoea, 1 of dysentery, 4 of cholera infantum, 3 of cholera morbus, 19 of diphtheria, 10 of croup, 7 of scarlatina, 28 of measles, 11 of whooping-cough, 148 of la grippe, 7 of typhoid fever, 76 of malarial fevers, 3 of cerebro-spinal fever, 11 of erysipelas, 85 of rheumatism, 81 of neuralgia, 131 of tonsillitis, and 66 of pharyngitis.

MAILBOX.

Measles were reported epidemic at Calico and Pasadena.

There has been no increase in smallpox in Southern California, and it may be regarded as stamped out. One case was reported from Napa County, about five miles south of Napa City. The precautions, such as isolation and vaccination, were the means adopted to limit its spread.

FOURTH ANNUAL SANITARY CONVENTION.

The fourth annual Sanitary Convention will be held at Los Angeles at 1 p. m. on April 20, 1896, under the auspices of the State Board of Health. Short papers on sanitary subjects are desired. There will be an afternoon and an evening session, and the transactions will be printed. All persons, in and out of the medical profession, who take an interest in public health matters, are invited to take part. The interest manifested in what California has done in this direction up to the present time justifies an increased confidence in the value of these conventions.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during February, 1896.

Cities and Towns.	Arbuckle	Berkeley	Calico	College City	Colton and vicinity	Chico and vicinity	Clayville
Estimated Population	500	10,000	500	700	2,500	8,890	1,000
Total Deaths	1	8	1	1	10	11	1
Consumption		2		1	1	1	1
Acute Pneumonia		1			1	3	
Acute Bronchitis							
Congestion of the Lungs							
Diarrhoea and Dysentery							
Cholera Infantum							
Other Diseases of St'mach & Bow'ls							
Diphtheria						3	1
Croup							
Scarlet Fever						1	
Measles							
Smallpox		1					
Whooping-Cough							
Typhoid Fever							
Remittent and Intermittent Fever							
Cerebro-Spinal Fevers						1	1
Cancer							
Erysipelas							
Heart Diseases		1	1				
Alcoholism							
Other Causes						1	5

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ABSTRACT FOR MARCH, 1896. (Continued.)

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia.	Acute Bronchitis..	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlet Fever	Measles	Smallpox	Whooping-Cough	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fevers	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes	
St. Helena and vicinity	2,500	3	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	3	
Truckee and vicinity	1,300	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Tulare City	2,000	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	1	
Upper Lake	225	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Vallejo	7,000	6	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	
Watsonville and vicinity	3,000	3	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	
Wheatland	600	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Williams	500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Totals	742,995	1,069	204	85	42	1	3	3	45	9	2	2	1	0	0	0	11	0	4	48	2	103	1	498

APRIL, 1896.

Reports from 67 cities, towns, villages, and sanitary districts, aggregating a population of 721,804, show a mortality of 991—a death-rate of 1.37 per 1,000 for April, or 16.44 per 1,000 per annum.

There were 183 deaths from consumption, 75 from pneumonia, 27 from bronchitis, 7 from congestion of the lungs, 1 from diarrhœa, 3 from cholera infantum, 69 from other diseases of the stomach and bowels, 5 from diphtheria, 3 from croup, 1 from scarlatina, 4 from measles, 2 from whooping-cough, 17 from typhoid fever, 4 from malarial fevers, 5 from cerebro-spinal fever, 45 from cancer, 4 from erysipelas, 103 from diseases of the heart, 6 from alcoholism, 427 from other causes, 5 of which were from la grippe and 1 from leprosy.

PREVAILING DISEASES.

Reports of prevailing diseases from 35 localities outside of the larger cities and towns give 44 cases of pneumonia, 109 of bronchitis, 15 of pleurisy, 15 of congestion of the lungs, 32 of diarrhœa, 20 of dysentery, 3 of cholera morbus, 2 of cholera infantum, 3 of diphtheria, 4 of croup, 10 of scarlatina, 101 of measles, 1 of smallpox, 22 of whooping-cough, 198 of la grippe, 12 of typhoid fever, 96 of malarial fevers, 18 of erysipelas, 106 of rheumatism, 50 of neuralgia, 114 of tonsillitis, and 42 of pharyngitis.

Measles were reported epidemic at Cottonwood, Colton, Red Bluff, and Redlands. Whooping-cough was reported epidemic at Knight's Ferry, and one case of smallpox was reported at the Napa County infirmary. Mumps were epidemic at Williams.

ABSTRACT FOR APRIL, 1896—Continued.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum.	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlet Fever	Measles	Smallpox	Whooping-Cough	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro - Spinal Fevers	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes	
Red Bluff and vicinity	5,000	6	2	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	1	—	1	
Redlands and vicinity	4,300	6	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Rio Vista and vicinity	2,000	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sacramento	36,000	41	12	2	1	—	—	—	4	—	1	—	—	—	—	—	—	—	1	—	—	—	—	
San Bernardino	9,000	8	1	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
San Diego	20,000	24	3	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
San Francisco	330,000	497	74	45	13	5	1	1	38	3	—	1	—	—	2	5	2	2	30	4	55	2	10	
San Jose	25,000	29	4	2	1	—	—	—	3	—	—	—	—	—	—	—	1	—	—	—	—	—	15	
San Luis Obispo	4,000	8	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
San Mateo	2,000	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Santa Ana and vicinity	10,000	10	1	1	—	—	—	—	2	—	1	—	—	—	—	—	—	—	1	—	—	—	—	
Santa Barbara	5,864	11	2	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Santa Monica	6,000	11	1	—	1	—	—	—	3	—	—	—	—	—	—	3	—	1	—	—	—	—	—	
Santa Maria	1,200	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Selma and vicinity	3,000	2	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	
Sierra Valley	1,000	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
St. Helena and vicinity	2,500	7	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tehama	500	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tulare City	2,000	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Upper Lake	300	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Vallejo	7,000	16	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Veterans' Home, Yountville	650	8	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Watsonville and vicinity	3,000	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Williams	500	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Totals	721,804	991	183	75	27	7	1	3	69	5	3	1	4	0	2	17	4	5	45	4	4	103	6	427

MAY, 1896.

Reports from 58 cities, towns, villages, and sanitary districts, aggregating a population of 737,270, show a mortality of 986—a death-rate of 1.33 per 1,000 for May, or 15.96 per 1,000 per annum.

There were 160 deaths from consumption, 81 from pneumonia, 33 from bronchitis, 8 from congestion of the lungs, 1 from diarrhœa, 9 from

cholera infantum, 81 from other diseases of the stomach and bowels, 6 from diphtheria, 6 from croup, 1 from measles, 3 from whooping-cough, 12 from typhoid fever, 5 from malarial fevers, 11 from cerebro-spinal fever, 42 from cancer, 92 from diseases of the heart, 4 from alcoholism, and 431 from all other causes, 8 of which were from la grippe.

PREVAILING DISEASES.

Reports from 41 localities outside of the larger cities and towns give 68 cases of pneumonia, 112 of bronchitis, 14 of pleurisy, 27 of congestion of the lungs, 51 of diarrhoea, 28 of dysentery, 19 of cholera morbus, 8 of cholera infantum, 4 of diphtheria, 9 of croup, 49 of scarlatina, 190 of measles, 84 of whooping-cough, 176 of la grippe, 26 of typhoid fever, 144 of malarial fever, 4 of cerebro-spinal fever, 18 of erysipelas, 97 of rheumatism, 69 of neuralgia, 87 of tonsillitis, and 43 of pharyngitis.

Measles were reported epidemic at Forest Hill, Rio Vista, Redlands, and Cedarville, and mumps at Knight's Ferry and Watsonville.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during May, 1896.

[illegible]

ABSTRACT FOR MAY, 1896—Continued.

Other Causes.....	1	2	54	3	11	30	2	1	2	1	3	3	14	5	11	28	10	4	1	7	2	1	1	2	1								
Alcoholism.....			1			1										2																	
Heart Diseases.....			12	1	9	1						13	2	1	1	48	6	1		1													
Erysipelas.....																																	
Cancer.....					1								3			32	1			3	1												
Cerebro - Spinal Fevers.....			4	1								1		1		2																	
Remittent and Intermittent Fevers.....	1			1							2	1																					
Typhoid Fever.....					1									2	2	7	1					1											
Whooping-Cough.....																3																	
Smallpox.....																																	
Measles.....																																	
Scarlet Fever.....																																	
Croup.....														2		4																	
Diphtheria.....												1				5																	
Other Diseases of St'mach & Bow'ls.....				16	2	5								4	1	43	3		3														
Cholera Infantum.....				3									1	1	3	3				1													
Diarrhoea and Dysentery.....																1																	
Congestion of the Lungs.....													1		1	2			1						1								
Acute Bronchitis.....				3	1											25																	
Acute Pneumonia.....			1	11	1	4					1		3	1	1	48	3		2					1									
Consumption.....				24	1	8	1							4	1	85	3		3	5													
Total Deaths.....	0	1	1	1	128	10	11	59	2	3	0	2	5	3	0	538	25	6	1	20	9	0	3	1	4	0							
Estimated Population.....	1,500	1,000	2,000	1,000	15,000	100,000	4,000	1,000	5,000	60,000	2,000	3,500	9,000	1,000	5,000	2,500	4,000	2,000	30,000	9,000	20,000	330,000	25,000	4,000	2,000	10,000	5,864	5,216	1,200	3,000	2,500	500	1,300
Cities and Towns.....	Kings Ferry.....	Lockford.....	Long Beach and vicinity.....	Lathrop.....	Los Angeles.....	Los Angeles.....	Marysville.....	Mariposa.....	Madera and vicinity.....	Oakland.....	Oroville.....	Ontario and vicinity.....	Pasadena and vicinity.....	Pleasanton.....	Red Bluff and vicinity.....	Redding and vicinity.....	Redlands and vicinity.....	Rio Vista and vicinity.....	Sacramento.....	San Bernardino.....	San Diego.....	San Francisco.....	San Jose.....	San Luis Obispo.....	San Mateo.....	Santa Ana and vicinity.....	Santa Barbara.....	Santa Rosa.....	Santa Maria.....	Selma and vicinity.....	St. Helena and vicinity.....	Tehama.....	Truckee and vicinity.....

San Diego	20,000	17	3	2	--	3	--	9	--	1	--	1	--	5	--	10	--	2	--	28	--	2	--	60	--	1	--	2	--	109
San Francisco	330,000	28	66	49	20	--	3	--	1	--	4	--	2	--	1	--	1	--	2	--	2	--	2	--	2	--	2	--	18	
San José	25,000	50	1	2	1	--	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	3
San Luis Obispo	4,000	6	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
San Mateo	2,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
San Rafael	3,800	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Santa Ana and vicinity	10,000	17	3	--	--	1	--	2	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	8
Santa Barbara	5,864	10	3	2	--	--	--	2	--	2	--	--	--	3	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Santa Clara	3,000	2	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Santa Maria	1,000	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Santa Maria and vicinity	3,000	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Selma and vicinity	2,500	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
St. Helena and vicinity	2,500	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
St. Helena	350	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Tehama	350	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Truckee and vicinity	1,300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Tulare City	2,000	3	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Upper Lake	300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Watsonville and vicinity	3,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Williams	500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Totals	734,314	938	134	79	26	6	6	14	71	2	5	3	2	0	5	20	1	6	39	3	95	8	413							

SANITARY INSPECTIONS BY C. A. RUGGLES, M.D.

INSPECTION OF THE FOUNDLINGS' HOME, AT SACRAMENTO.

To his Excellency JAMES H. BUDD, Governor:

SIR: In accordance with a request made to me December 9, 1895, by your Honorable State Board of Examiners, that I make a sanitary inspection and examination of the Foundlings' Home at Sacramento, I would say that I have attended to the duties assigned to me, and most respectfully report that I notified, personally, Dr. Waggoner to furnish me with a detailed statement of the charges and allegations in relation to the institution aforesaid, which he promptly did, and a certified copy of the same was immediately furnished to the managers of the Home. All parties were notified as to the time and place of holding the investigation—Tuesday, December 17th, was the time, and, by the courtesy of Secretary of State Brown, the Supreme Court room was assigned as the place of hearing and investigating said charges.

Governor Budd had detailed a stenographer, and many daily papers were represented by their reporters. All parties assembled were notified that a full, fair, thorough, and impartial hearing would be made, with no haste, and, as far as possible, according to judicial rules.

The presentation of the charges was conducted by Dr. Waggoner; the refutation by Judge Holl.

Before entering upon our assigned duties, I was notified that two of the allegations (viz.: that persons wishing to adopt children were refused, unless a stated amount was paid; also, that State aid had been obtained for absent children) were withdrawn. It was arranged that these allegations should be taken up and considered seriatim, and they will now be reported upon in the same order.

The first article was as to the uncleanness of the institution. The evidence was very positive and conclusive that previous to about the 1st of October the institution was not in the neat and cleanly condition it should have been—the walls were smoked, the paint dirty, the bedsteads were many of them wood and infected with bedbugs. It is in evidence that at that time, to the credit of the managers it can be said, a special meeting was called and measures ordered taken to have this sad condition of things relieved—all of this previous to the inspection visit per order of the local Board of Health. Since that time the renovating process has been going on as rapidly and as thoroughly as the financial condition of the institution will permit. From personal observation I am able to say that the walls are newly and neatly kalsomined, the paint renewed, and varnish applied wherever necessary. The modern bedsteads, which had been kindly and with mistaken charity bestowed, had been condemned and consigned to the flames, and new iron bedsteads supplied in their places. It is satisfactorily shown that the present condition is what is desired, though it must be admitted that the condition previous to the date mentioned was very reprehensible.

The allegation as to the underfed condition of the inmates was next taken up and fully considered. Much emphatic testimony was presented as to the amount and character of the food furnished. But the great preponderance of evidence of Lady Managers, Matron, and the cook, whose boy was one of the unfortunate starved ones, the presentation of bills for supplies, supplemented by my own personal examination of the children, compel me to say the allegation is not sustained.

The next in order of consideration was the allegation of very great mortality in the institution. The computation from the identified records of the institution shows me that the mortality was fifty-three per cent of admissions. At the first glance this appears to be very large, and justifies a presentation of the allegation, but when it is considered that the great majority of the unfortunates are of a degraded, dissipated, and diseased origin, it does not seem so strange. Also, it is to be considered that over sixty per cent of all hand-fed babies die before arriving at the age of five years; that nearly ninety per cent of all the babies in cities and towns under one year of age, who are fed on artificial nutriment, die; also, that sanitary statistics and foundling hospital reports, both foreign and domestic, show a much larger per cent of mortality than does this institution. I am surprised that it has done as well as it has. By comparison with those of Russia, Italy, and France, its per cent of mortality is much less.

Very strong inferential evidence was produced to sustain the allegation as to the immorality among the inmates. These charges are of a very serious nature, and, if sustained, should receive very severe condemnation. The evidence is somewhat conflicting, but enough is shown to place some of the inmates in a very compromising situation. There seems to be a very peculiar condition attached to this institution: It is nominally a foundlings' home, yet really an orphan asylum, with inmates of all ages up to thirteen. If it be really a home for foundlings, my opinion is that no children over the age of five or six years should be admitted, and that those already here over that age should be transferred to the regularly organized orphan asylum. Or, if this plan of organization is to be continued, then a system of most rigid discipline should be immediately adopted, so that a complete, perfect, and positive separation of sexes should be maintained and no possibility of a recurrence of what is the foundation of this allegation.

Respectfully submitted.

CHAS. A. RUGGLES, M.D.

STOCKTON, August 20, 1896.

INSPECTION OF GOOD TEMPLARS' HOME, AT VALLEJO.

To his Excellency JAMES H. BUDD, Governor:

RESPECTED SIR: The reception of your communication, dated March 31st, in relation to the sanitary inspection of the Good Templars' Home at Vallejo, containing an anonymous statement as to its condition, is duly acknowledged. With a high appreciation of the honor conferred by my selection for said duty, I now most respectfully report that, on April 3d, I, unheralded and unannounced, visited the institution, and at a very opportune time, as there was a special session of the managers. Upon my explaining the nature of my mission and showing my

authority, I was gladly and courteously received, and every facility was offered to accomplish my purpose. A very strong and earnest desire was evinced that the examination should be as thorough and complete as possible. Judge Thompson, one of the Board, was selected to escort me around the building and premises. We examined every part and portion, from basement to attic inclusive, as to its sanitary condition.

I particularly confined my attention to a critical examination as to food, clothing, and bedding of inmates, to ventilation, water-supply, and sewerage. The food was first class in every respect, and, as I saw the entire household at dinner and examined carefully what they ate, I can say it was amply sufficient. An examination into the condition of bedsteads and bedding convinced me that there were too many wooden bedsteads—those prolific harborers of bedbugs—and I emphatically condemned their further use, especially as the iron frame can be so cheaply constructed at Folsom. The managers said the iron was being substituted as fast as possible. The ventilation is very good—no unpleasant odors or exhalations, such as are too often found in public institutions when imperfectly ventilated, were discovered. The supply of water is ample, and the quality very good.

A very careful examination was made into the condition of the water-closets and lavatories generally. Some of the water-closets are of modern style and pattern, with perfectly working flush-tanks; the others are supplied with automatic flushings, which, with an abundant supply of disinfectants, keep them in a good sanitary condition. The bathing facilities, both as to water-supply and number of tubs, are amply sufficient.

The sewage of this establishment must necessarily be large, and requires great attention as to its disposal. It is collected and conveyed in iron pipes, perfectly jointed, over four thousand feet from the building to tidewater. The plumbing is good, and all danger arising from the presence of deleterious gases is avoided.

There are, at present, in the institution 203 inmates—134 boys and 69 girls. I made a personal examination into the condition of bodily health, and, when we consider the probable parentage of these children, with a knowledge of the capable transmission of disease from sire to scion, I must say I was surprised to see a collection of children so free from hereditary taint. There is not a single case of tuberculosis in the house. There is one case of epilepsy that surreptitiously gained admission. I advised the managers to secure its removal to Glen Ellen.

The statement that the institution is filled with malignant and communicable diseases can be best contradicted by the fact that in twenty-eight months there has been only one death, and at the present time the infirmary contains only one patient.

The medical interests of the institution are presided over by Dr. Carpenter, a medical gentleman of high repute, an enthusiastic sanitarian, at present Health Officer of Vallejo. He is assisted in the infirmary by Mrs. Blume, whom I have known for many years as a lady whose ability as a nurse and a careful dispenser of medicine cannot be questioned. Dr. Carpenter, in his zealous desire to perfect the sanitary condition of the institution, has in contemplation a plan of procedure that will require some considerable labor, but not much money, which, being explained, was most cordially indorsed by me, and the doctor advised to complete it as soon as possible.

While there was much to admire, there were some matters that I most

emphatically and positively condemn. The wooden bedsteads I have mentioned as subjects to condemn. While lime is so cheap, and lead and oil can be so easily obtained, I must say that if more attention were paid to a copious and bountiful application of whitewash and paint, the condition of the building would be much improved.

Respectfully submitted.

C. A. RUGGLES, M.D.

INSPECTION OF INSANE ASYLUM AT HIGHLAND.

Having been appointed a committee to make a sanitary examination of the Insane Asylum at Highland, in San Bernardino County, I most respectfully report that, unannounced and unexpected, I arrived at the institution on the morning train from Los Angeles, April 18, 1896. I was very courteously received by Dr. Campbell, the Superintendent, who kindly extended to me every facility for fully discharging the duty assigned to me.

The first thing that I was obliged to harshly criticise and condemn was the overcrowded condition of the institution. The dictates of humanity should cause the proper authorities, those who are responsible for this unfortunate condition, to immediately relieve that deplorable state of things. In this overcrowded condition it is something remarkable that disease has not pervaded the building, and death claimed as victims many of the unfortunate inmates. It is surprising that discipline and good order can be as well maintained as it has been.

The food was very closely and critically examined, and was declared to be of first-rate quality.

The bedding and clothing of the patients were closely inspected, and were found to be all that could be desired.

The sewerage of the institution was good, the plumbing all that was necessary.

The ventilation, on account of the overcrowded condition of the rooms and halls, was somewhat impaired.

There is great need of a change in the water-supply, which I am informed has already engaged the attention of the Directors and will be attended to as soon as possible.

The Superintendent and subordinate officers are entitled to much credit for the management of the institution under such embarrassing circumstances.

There is one feature in connection with this institution that is not as generally known by the public as it deserves. I refer to the fact that it is the only one of the hospitals for the insane where the inebriate is received by committal for treatment. That inebriacy is acquired in very many instances, no one questions. That it is a species of lunacy inherited in other instances, must be acknowledged. And the great heart of humanity must rejoice to know that the State has provided a place for curative treatment other than in county jails and houses of correction.

I congratulate the Superintendent on the favorable result of treatment in the cases that have been placed under his care.

Respectfully submitted.

C. A. RUGGLES, M.D.

STOCKTON, August 20, 1896.

REPORT OF DELEGATE TO THE NATIONAL CONFERENCE OF STATE BOARDS OF HEALTH.

To the President of the State Board of Health of California:

DEAR SIR: In pursuance with a call issued by the Executive Committee of the National Conference of State Boards of Health, a meeting of that organization was held at the Auditorium Hotel, in Chicago, on June 10, 1896, and was opened in due form by Dr. Taylor, of Indiana, the President, all the officers being present. Addresses of welcome were made by his Excellency the Governor of Illinois and his Honor the Mayor of Chicago, which were ably responded to by President Taylor. The usual reports of officers were read and approved. There was not as large a representation from the different States as was desired, but what was lacking in numbers was made up in enthusiasm and deep interest in all the proceedings.

At a previous meeting of the Conference a special committee was appointed to visit and ascertain the condition of the various vaccine farms. Dr. Swartz, of Rhode Island Board of Health, was chairman, and made a very able and exhaustive report. From personal inspection and reliable information carefully obtained, he was able to present to the Conference a very interesting and instructive account of the production of the bovine virus of the different farms in the United States. There appeared to be a very considerable sentiment among the delegates that properly obtained humanized virus was superior in its results to bovine virus, but that in time of epidemics, when it would be necessary to use large quantities, it might be impossible to obtain the desired amount, so it was considered advisable to encourage the production of a reliable bovine article. Among the different articles of bovine virus mentioned in the report, and the manner of preparation, the delegates probably made up their minds as to the purity of each. I do not hesitate to say that my preference was for two articles, one made by the Minnesota farm, and the other by Dr. Welcker, of Milwaukee, Wis., with a most decided preference for the latter. It is prepared with the greatest care as to purity, is hermetically sealed in glass tubes, thus protecting it from changes of atmosphere or contaminating surroundings. The purity, as claimed, has been frequently established by bacteriological examination by the Health Department of Chicago, which used it, with very satisfactory results, during the last epidemic of smallpox in that city, in preference to any and all others. The committee was allowed further time for examination as to other establishments that limited time had prevented.

The delegates of the different States were called upon alphabetically to state what improvement in sanitary matters had been perfected during the year past. The improved methods of gathering statistics and reports as to sanitary condition of different localities were mentioned. When it came to California, your delegate was much complimented and highly flattered by the close attention paid him and the interest mani-

festated as he related the action of our Board relating to procuring antitoxine for diphtheria, particularly so, when informed that it was free to all, simply by asking for it and complying with certain requirements of a clinical nature. Great interest was manifested in my relation of our protection from invasion of smallpox by the placing of inspectors for examination of passengers on trains. The statement as to the antitoxine for diphtheria naturally created an interesting discussion among the other States, but the universal sentiment expressed was in favor of it, particularly by Dr. Murdock, of Chicago, who had municipal control of diphtheria in that city, whose able, concise, and comprehensive report on that subject fully confirms the most sanguine statement made as to the prophylactic and immunizing properties of the diphtheria antitoxine.

It was surprising to me to hear mention, by the delegates from the several States, of the great amount of sanitary-instructive literature circulated by them as to the communicable diseases, particularly as to tuberculosis. It is mysterious why so great an effort should be followed by so small and meager result. Year after year each board puts out its printed matter broadcast over the land, endeavoring to warn the people and instruct them how to evade the trouble. Yet the Pale Destroyer goes on in its relentless progress, regardless of all our efforts to stop its march, as the yearly reports show no diminution in the death-rate from that disease. One possible way of accounting for this apathy or indifference is the fact that the unfortunate victim is the very last person to realize or believe that this literature, these precautionary remarks, are intended for his instruction as to expectoration, etc., but must have been intended for some one else. Recognizing the communicability of tuberculosis from animals to man by means of milk, indorsement and encouragement were advised to be given to all local Boards of Health to persevere in the tuberculin test and the destruction of animals thus detected to be infected. The opinion is fast gaining ground that the time is not far distant when legal restriction will be resorted to as a preventive measure, as from reliable source I learn that the City of Boston has recently declared to be a nuisance a consumptive home located at Greve Hall, in a closely settled portion of that city, and has ordered its removal before 1900. Many Eastern cities have become much interested in preventing children afflicted with the disease from attending the public schools, extending the same prohibition to teachers.

In this same connection it is proper to mention that a communication was received from the Bureau of Animal Industry, stating that Congressional action was being taken to prevent scientific investigation in animals, the sole aim of which was for the relief of suffering humanity. A resolution was unanimously adopted to oppose by all possible means the adoption of any such measure.

Among the many courtesies extended to the Conference was one seemingly of more importance than any, viz., an invitation extended in person by an officer of the Commission to make a visit for inspection of the drainage canal of the sanitary district of Chicago, which invitation was gladly accepted, and, in a train of cars provided by the Commission, the Conference, accompanied by many other invited guests, devoted nearly a day to a close and rigid inspection of the great work. It is a great work, and does much credit to the brain that originated it and to the indomitable effort and perseverance of those engaged in its construction. It is 135 feet wide, 35 feet deep, and extends from Lake Michigan

to the Mississippi River. Much was said and shown to be its commercial advantages of ready transportation from the lakes to the Gulf of Mexico, but of these points we took but little interest, as the most that concerned us as a Conference of State Boards of Health was its sanitary importance. The sewage of the City of Chicago finds its only outlet into the river and thence into the lake, whence all the drinking-water of the city is taken. The population of this city is increasing in a wonderful degree, and the possibility of its drinking-water being now contaminated by sewage, will soon be converted into a positive certainty. Among all the plans proposed for an alleviation of this great calamity, the most feasible and surest to gain the desired end was the drainage canal. Much brain and time and money must be expended before the completion of this magnificent work, but much confidence is expressed as to its final success. When we consider the magnitude of this great metropolis of the West, the danger from contaminated drinking-water to which they are daily exposed—when we think of the amount of disease and probable death with which this people must soon be necessarily surrounded, we cannot refrain from extending to them our sincere wish for a speedy completion of the great work and the most perfect success to attend its finish.

A magnificent banquet, with which the most fastidious epicurean could have found no fault, was prepared for the many invited guests. After which speeches were in order. Truly, it was a feast of reason and flow of soul. For the pleasurable enjoyment of the same we all extended our unanimously adopted resolution of thanks.

On the day following, an invitation from city authorities to visit the crib in the lake was accepted, and in a finely furnished tug we traveled around, inspecting the city water-supply. Surely, it was a plan for a good water-supply, grandly conceived and as finely executed. But our sympathy was excited by the unfortunate necessity, on account of bad sewerage, for the expenditure of so much money. But at the same time extended our congratulations in the belief that soon the drainage canal would relieve all ideas suspicious of bad, contaminated drinking-water.

An invitation from the Governor of Tennessee and the Mayor of Nashville for the Conference to meet in Nashville in May next was received and accepted. The Executive Committee will fix the exact day.

After the election of officers, the Conference adjourned.

Respectfully submitted.

C. A. RUGGLES, M.D.

STOCKTON, CAL., July 20, 1896.

REPORT OF THE COMMITTEE ON THE SUPPRESSION OF
INEBRIETY.

By P. C. REMONDINO, M.D., of San Diego.

To the President and Members of the State Board of Health of California:

GENTLEMEN: In compliance with your instructions, I have the honor herewith to place before you the result of my investigation into the much vexing subject of the cause, existence, and remedy of inebriety, a question simple enough to manage could it be diverted and thoroughly separated from its many entangling environments and graftings—environments and graftings created by sectarian prejudice and by many good-intentioned people, but which have neither natural connection nor bearing on the real matter; and whose unreasoning interference and intrusions, in my opinion, only tend to increase and spread, rather than diminish and do away with, the evils. The north of Europe and the British Isles are in many ways similarly situated and embarrassed with the same questions, except that inebriety does not there so much affect the professional and business, as well as the leisure class, as it does with us, especially on the continent. Faulty education as to really what constitutes ethical conduct makes many irresponsible and helpless sinners against the laws of sobriety, just as injudicious enactments oftentimes create criminals that are only legal but not moral criminals.* Legal enactments, injudicious governmental actions, and the inconsiderate actions of not sufficiently broad-minded and impartial statesmen and moralists, have, in an indirect manner, too often contributed to the creation and spread of inebriety, either while thoughtlessly pursuing some other and unconnected polity of government, or even while directly attempting to suppress that which they were actually but unconsciously not only fostering but also encouraging.

The above remarks will be explained in detail further on, where examples will be given of the evils which a government can thus inflict on a people. In looking backward, however, one cannot help but wish that, for the cause of temperance in the matter of drink, as well as for that of temperance in avoiding either extremes of jollity or of melancholy, either the House of Stuart, with its perfumed and curled and much embroidered and reckless dandies, or their opponents, the severe and bilious-countenanced Covenanters, had never existed; but we much wish that, in their place, there might have been successive generations of healthy-livered Robin Hoods and his merry men in green, with their opponents, the sturdy but well-fed royal retainers, and the smooth-faced and jolly-bellied bishops and abbots, even if they had now and then to dance a hornpipe

* While Anglo-Saxons and Americans contend more for absolute abstinence, they do not make of inebriety such a social crime as it is considered among wine and beer drinking nations. There, the temperate use of wine and beer is perfectly consistent with an upright conduct, but no intemperance or drunkenness is tolerated. With us, we condemn temperance and condone intemperance.

on the woodland green, as the sylvan creations of Theocritus were wont to gladden the wooded dales of the isles of the Mediterranean Sea, for the amusement of the merry men of the greenwoods. Had not the frivolous Chevaliers called into existence the stern and unrelaxing Roundheads, men possessed of all the abstemiousness and severity of morals of a John the Baptist, but with none of his charity or abnegation of spirit, America would not probably be wrestling with the subject of intemperance and inebriety to the extent that she is at this time. It seems as if, with the downfall of the Stuarts, a more of a middle-of-the-road code of convivial ethics might have been adopted, some that would have prevented the Anglo-Saxon race from becoming such horrible examples of moral depravity as is evidenced by their tendency to inebriety, and that better counsels might have prevailed in directing the trend of public morality as well as of government.

Such counsels did not prevail, however, and the perverted and unnatural ethical code that gradually invaded England from the north, with such hostility and chilling repression of all natural sentiments that it seemed as if the long-receded Ice Age, which had left its geological and archaeological vestiges on the green and wooded landscape, was about to reinvade its old possessions. Unfortunately for America, the cream and essence of this chilly blast of St. Anthony's morality in its dissenting garb, coming from the north, was forced to emigrate, and finally found a home upon the shores and hillsides of New England. These people were most certainly and undeniably good and strictly moral, and their good intentions are unquestioned, but they did not carry into their life a sufficiently broad or cheerful view of the world, or of creation, so as to cover all possible reactions and retroactive processes that might result to their descendants in this mundane hereafter, and to others, from their line of adopted and too strictly enforced repressive conduct. Unlike to John Wesley, they failed to look beyond their present. Wesley was not a little perplexed when, in looking into futurity, he foresaw the accumulation of wealth that would naturally center among the members of his church as a result of the frugality and economy, abstemiousness and self-denial, which the rules of the church entailed upon all of its members, who were thus supposed to live a life just the opposite of that indulged in by the gay courtiers of the time of a Charles II or that of a Louis XV. He but too well realized that, by the law of natural reaction, the accumulation of health and wealth thus garnered must, sooner or later, find a reactive outflow; that retroactively here was being gathered an arsenal of future corruption, and that both the physical and spiritual welfare of the descendants of his good flocks must, in the end, suffer the consequences. Wesley recognized this active and unescapable law of ethical gravitation, as it might be called, that affects morality and depravity, as well as he was aware of that law of gravitation which affects all that is ponderable in our planetary system. Our New England forefathers did not take this same view of their course and method of life, but seemed to have imagined that theirs was a race entirely different from any that had gone before, or possibly, as before said, they did not give a thought beyond their immediate present. That a reaction would follow, or that their methods were only adapted to the times and circumstances of the days of Cotton Mather, seemed never to have passed their thoughts, any more than it seemed to have occurred to them that their repressive methods would ill

fit or ill accord with other races or other temperaments, and that possibly entirely different effects from those desired might in the end be the result.

No philosophical student of history or sociology will, however, blame or condemn the poor, persecuted Puritans, who were forced, for the exercise of freedom of conscience, to flee from their native land to brave the hardships and privations, as well as dangers, to be encountered on the bleak and wintry shore to which they directed their course. There is no lover of mankind or of personal liberty but must reverence those old heroes who, rather than submit, were willing to brave all the new and unknown terrors that awaited them; no manly heart but goes forth to these persecuted people in their calamities and distresses; and no manly heart but honors their bravery and endurance, as well as the stoical character of their rugged natures, through their migrations and struggles to found a new home.

However differently we may now look upon their repressive and somber code of mixed religious and ethical morals, we should not forget that they were as logical an outcome of the moral, social, and political corruption of their times, just as much as the plebeian, noble, and even princely hermits who, preferring a life in the deserts to further communion or commerce with the vile corruption that punctuated the declining days of the greatness and opulence of Rome and its provinces, dotted with their huts the ravines and hillsides of the Asiatic and African wilds. The pilgrims were by no means the first of their order, as they will not be the last. The frivolous voluptuousness of the court of Mary only served to bring out in stronger relief the sentiment of Knox, and to make those sentiments more pronounced and more self-assertive, just as *the* Diogenes never would have existed but as an opposite to the luxury and vanity of his brother philosophers. So, in a like manner, with the profligate court of the English Stuarts, the repressive and morose Puritan was but a natural and counterbalancing result, just as his brother Huguenot went to all extremes of moral severity and demeanor, in contradistinction to the frivolous and debauched bearing and conduct of the dandies and pets of the courts of the princes of the House of Valois. No one will read the journal of Pierre d'Estoille, chronicling the daily doings of the pets of Henry III, without offering thanks to Heaven that the Huguenots arrived on the scene at that time to act as a counterbalancing factor, as otherwise France would soon have seen reenacted the horrible scenes that dotted the darkening days of Nero's reign.

There comes a time in the course of the diseased condition of morals, as in the course of the disease of an individual, when the order and quality of the remedies, diet, and daily exercise and recreation must be changed to suit the exigencies of the case, and it is just here where our Puritan friends seem utterly to have failed in discovering that the causes which called their mixed code of ethics and religion into use had as utterly passed out of existence, and that they might as well settle down to a life like that followed by their Teutonic or Gallic neighbors, or live more freely, like their compatriots and brothers of the Anglican Church. They have failed to realize that it was an unnatural order of affairs that called for the equally as unnatural, repressive, and severe ethics of their sect; that the further administration of this remedy, when there exists no cause for its continued administration, produce unlooked-for and

undesirable results, and that in modern times their extreme ethical ideas, as governing every phase of daily life, are as far out of place as a modern monarch would be in imitating the example of Henry II undergoing flagellation at the tomb of Thomas à Becket, or as a modern bishop or cardinal would be in attempting to reenact the rôle of a Torquemada.

As Felix Oswald well observes, the religions of the ancients exalted vice as well as nature, and now our modern religions suppress nature as well as vice, and we are struggling toward a more rational as well as a more practical religion, one which will teach us to discriminate between vice and nature. Those good people undertook to spiritualize man and to utterly abstract him from that nature of which he is an inseparable part, a result that cannot be attained without a return to the monasticism of the early Christian centuries, with all of its self-denials and strict following of the gospel injunctions. It is only as a *whole* that we can be truly literal followers of the Master, and no half-way repentance with unending reservations will accomplish the intention of being thoroughly good.

As observed by Canon Kingsley, "To an age of luxury and unbelief has succeeded more than once in history an age of remorse and repentance as well as of superstition. Gay gentlemen and gay ladies renounce the world, as they did in the time of St. Jerome, *when the world is ready to renounce them*. We have already our nunneries, or monasteries, of more creeds than one; and the mountains of Kerry, or the pine forests of the Highlands, may some day once more hold hermits, persuading themselves to believe, and at last succeeding in believing, the teachings of St. Anthony, instead of those of our Lord Jesus Christ, and of that Father of the spirits of all flesh, who made love, and marriage, and little children, sunshine and flowers, the wings of butterflies, and the song of birds, who rejoices in his own works, and bids all who truly reverence him to rejoice in them with him."

It was the somewhat altered and amended teachings and ideas of St. Anthony that our good people, flying from English corruption, brought to our shores—teachings that make no account of nature any more than they do of physiological demands. Cheerfulness and mirthful recreations were grievous sins, and neither were, therefore, permitted, to say nothing of being thought necessary to health or longevity. To use the words of Oswald, they failed to realize that, with few exceptions, the children of Christendom are stricken with a disease which mirth alone can cure, and that it is especially so in the colonies of North America and in parts of Great Britain, where "it is pitiful to witness the slow withering of so many light-loving creatures in the hopeless night of poverty and sabbatarianism; more pitiful to see the reviving of their spirits at every deceptive sign of dawn, the expedients of poor, compromising nature, her makeshifts with half recreations and half sufficient rest, in the lingering hope of a better future—to come only with the repose from which no factory-bell can awaken a sleeper. Man cannot conquer God-sent instinct, though he may for a time defy it—with poison; the most incurable victims of intemperance are they who resort to stimulants, less for the sake of intoxication than for the benumbing after-effects, which helps them to stifle the voice of outraged nature." Just as many a poor Scotchman has found to his cost who had to choose between the oblivion of a calm, still drunk, or the enervating

effects of a droning Sabbath sermon, and the mental and physical apathy of a typical Scotch Sunday.

Intemperance and inebriety have, therefore, as we have seen, other sources of creation than those exerted by the mere presence of the saloon or of liquor; but, as we shall see, they often depend upon sins of commission upon the part of those who should be better trained or who assume to control the destinies of their fellow men.

The liquor question is, in the United States, as an inheritance of our Puritan Fathers, an ever disturbing as well as an ever absorbing and ever upheaving question. Looked upon as blessings and as foods by the southern Europeans, beers and wines here are looked upon by many as curses. Just why the products of the carefully cultivated vineyards or hopfields, which are such necessary and industrial supports to whole sections of Europe, as well as of America, and which are now among the main industries of California, or why the products of California barley—California produces the best barley for malting purposes, and the crops of its best barley sections are always secured for consumption by the breweries of the East—should be looked upon with such dread and disfavor, if not with positive hatred and muttered curses, are all really unanswered questions, unless it be that the questioner is indignantly asked whether the demon of inebriety that stalks through the land, sowing discord and mental and physical destruction, along with every phase of moral corruption and degradation, is not sufficient answer to the question.

Without any further questioning, and as a simple result of a surface investigation from cause to effect, the prevalence of inebriety in the United States, and all its attendant evils, is at once, unhesitatingly, and without any distinction, ascribed to the presence of beer, wines, and liquors. With the simplicity and laconic reasoning that animated the followers of the Prophet in their dissemination of the Koran, the modern temperance or prohibition crusader bends all his energies to the suppression and destruction of the evil, reasoning that with the absence of the cause the evil must cease to exist. To this end he would uproot the vines that give us beer or wine, as well as stop the use of barley for brewing purposes, and thus overturn the thrones of Bacchus and demolish his statues and end his worship. Like to the early crusader, inflamed with a pious and earnest zeal, the new prohibition crusader only sees the evil and the cause, and in his burning anxiety to overcome and destroy the latter, and relying upon the justness of his cause, he is too apt to look upon any thoughts that might counsel more considerate judgment as evidences of the intrusion or workings of Satan. The careful study of the subject, the question of the equity of all parties concerned, or of the direct injury he may inflict on commerce or on the agricultural and industrial pursuits, are now all matters of minor considerations compared to the great and primary need—the destruction of alcohol. The question of the need of any liquors as foods or beverages is sternly set aside, in the face of the glaring evils visible, as a subject hardly worth considering.

It is needless to say that, however opposed all good-intentioned men are to the existence of all the moral, mental, physical, and financial injuries that inebriety may and does inflict upon a community, the lack of study applied to the question, and the consequent hasty, inconsiderate, and unjust methods adopted for its amelioration, have, in the end,

resulted in a very small amount of good, in contrast to the injury that has been a continued result from the presence of increasing inebriety as well as from the great injury inflicted upon the moral ethical bearing of the nation by the resulting forcing of the saloon into politics, where it has become a most influential, as well as corrupting, factor.

Paradoxes are the rule rather than the exception in the wonderful sociological changes that have taken place in the history of the world. The great conquests, and the great resulting wealth of Spain, were, as most philosophical historians tell us, the direct causes of her ruin. The poor Britons found harder masters when they called the *outré mer* barbarians to their assistance against the incursions of the Scots. So it was with the evolutionary history of Spain. The Carthaginians called to assist in the defense of Gades finally dispossessed the Phœnicians and Celtiberians, and the remnants of the latter who called in the aid of the Romans became themselves subject to Rome, while the Spanish Inquisition only fastened and strengthened the Reformation it was intended to destroy. In a like sense it will no doubt astonish many earnest workers in the cause of temperance to learn that their extreme and inconsiderate prohibitory measures have, in the end, however opposite intentioned or unconsciously, been the means of creating and fostering inebriety, not only alcoholic, but also the still more numerous inebriety due to drugs.

These results are the logical and rational outcome of a non-acquaintance with a subject which is made the object of such violent and inconsiderate attacks, and from totally ignoring its physical and sociological bearings, as well as its physiological uses or abuses and medical phases, and in insisting upon looking at the matter from a purely religious or an ethical point of view—a consideration of the subject which relegates it to the religious bodies, which, unfortunately, in their present evolutionary stages, are the least able or prepared to treat it intelligently. The purely ethical view takes no consideration of the influence of race upon the subject, or of the many evolutionary processes that have made some races and nations peculiarly immune to the influence of alcohol, while others are as peculiarly subject to its influence in the most marked degree. To many of these zealous but inconsiderate workers, the questions of climatic, isothermal, and sociological influences, the influence of governmental polity and of legislation, as well as the influence of home-training, upon the production or elimination of inebriety, are set aside as questions that are utterly irrelevant, immaterial, and inconsequent, and the subject is disposed of in the arbitrary manner of those who rely too much upon the importance or potentiality of ethical rules, just as Amru, the Saracenic General, ordered the destruction of the famed Alexandrian library.

That the mere presence of beer, wines, and liquors is not the sole cause of drunkenness among the human race, has been evidenced by the sobriety of the Greeks among the ancients, as well as by that of the modern Romans—a sobriety which is the common characteristic of all Latin and Teutonic people where wine and beer are found in the greatest abundance and at the lowest prices, as well as in continued use. Here it is where the purely religious and ethical view of the subject has done the United States a great harm, by insisting upon the adoption of just the opposite means that are in daily use among those nations where drunkenness is as rare as it is common with us. Looking upon

drink of all kinds as a demon to be kept at bay, and on alcohol in any percentage as upon something that conveys an idea of sensuality, immorality, and devilishness in its very name, smell, or presence, we have even denied ourselves the right of inquiry as to the reason why the nations with whom wines and beers are most abundant, cheap, and in constant use, are among those which are proverbially the most sober, as well as no more immoral than ourselves.

As remarked in a previous paragraph, sociology is full of paradoxes. In one instance we have a nation with one of the greatest ratios of illegitimate births on record, throwing stones and making faces at another nation whose illegitimate ratio is proportionately far smaller, but whose morals must, according to the strabismic ideas of the former concerning ethical conduct, be perfectly horrible, on account of the theaters, art museums, pictures, and statuary, possessed by the latter; and the tendency to view life in the more jolly way indulged by the latter, in comparison to the austerity with which the former nation has encased its ethical bearing, as if in an old-fashioned, straight German corset, is looked upon as further evidence of being on the broad road to destruction. In like manner, without any further consideration or investigation, the simple use of any alcoholic beverage—whether it be light wine or home-brewed beer containing the one half or the thirtieth per cent of alcohol, or whether it is absolute alcohol only slightly diluted with water, being all the same to these good but inconsiderate workers, so long as any of the “demon” alcohol is in the beverage—places any people, in the estimation of these good but misguided and most uncharitable people, in the category of the drunken, highly immoral, and going-to-the-devil class. Unable to comprehend morality or strict ethical rectitude compatible with the ingestion of a rum omelette, assisted by a glass of generous Burgundy, with the presence of one of Canova’s works of art on a near pedestal or of one of Kray’s, Bouguereau’s, or Beaumont’s canvases on the wall, these good-intentioned people would fly from the presence of a Plato or of a Seneca into the embraces of a Reverend Brown or of a Durrant, or of any modern representative of Charles Dickens’ character Elder Stiggins or the Shepherd.

It is time that American civilization should take the proper view of these subjects. Everything repulsive is not necessarily a means of grace, and there are no sensible reasons why, with the doffing of that religious bigotry which saw salvation in a filthy hair-shirt, covered or filled with vermin, or in the continued absence of the bath or abstinence from shears, comb, or nail-brush, we should have retained as necessary that melancholy demeanor which, like the creed of St. Anthony, can only see perdition in anything that is cheering or elevating, and which can only perceive salvation in continued mortification and lugubriousness, and, like to the dyspeptic saints of old, the devil in anything that is pleasurable.

To what extent we are indebted to a pessimistic religious influence for these distorted views of humanity, we may mention that, according to the relation of Hazlitt, we are told that Coleridge, on reading that beautiful as well as spiritual production of St. Pierre, “Paul and Virginia,” became convinced that the modesty exhibited by Virginia in the final shipwrecking—an exhibition of maidenly modesty only equaled by that shown by the early Christian maiden martyrs—was a proof positive of the prevailing tone of French depravity. Poor Haz-

litt, a bright, critical genius, the son of a Unitarian minister, himself a victim of the misconceptions to which he gave rein, was one of the results of misguided and distorted education. Divorced at forty-four, after fourteen years of unhappiness, he again married, only to separate within a year, then to fall in love with a servant girl of questionable reputation, dragging himself through life with a beam in his own eye, while in terrible worry over the mote which he imagined he saw in that of his neighbor.

To go into the study of the subject of racial tendency to drink and of its causes would occupy more space than I intend to give to this report. I shall, therefore, attempt a curtailment to the discussion of the subject in its medical and sociological aspects, and endeavor to point out the way of salvation from the many quagmires of inebriety in which we are now floundering—floundering without any visible hope of early extrication, but simply spluttering and spattering mud about in goodly quantities and in every conceivable direction. That my suggestions will not prevail against habits of thought formed by education and custom, amounting to deep-rooted prejudices, is quite plain to me, but in making my suggestions I shall have the consciousness of having possibly set some toward a more considerate study of the subject, as well as of having done my duty to our people.

It is a well-known fact that before wine increased in price—when light wines were cheaper in price than the barrel that contained them—the French knew but very little inebriety. It is only since the increase of the price, and since wine has been necessarily supplanted by stronger spirits on account of their greater cheapness, that inebriety or intemperance has made any progress in France. Not alone have we the authority of the French themselves that this is the case, but even the testimony of such an acute and impartial observer and great ethical writer as Philip Gilbert Hamerton joins in the conviction that to grow sound light wines is an immense blessing to any community, because it offers a successful rival to strong spirits. Light wines are exhilarating but not brutalizing. The disappearance of these light, cheap wines, and their replacement by heavier and higher-priced wines, has been a great injury to the lower French classes, who, as a consequence, have been driven to the use of cheaper but stronger spirits, with the same effect upon them that is observed upon the common Londoner, or the lower inhabitants of Glasgow, who are proverbial dram-drinkers.

California possesses, in her soil and climate, the means of undoing a great deal of the national inebriety; but to attain that much wished-for result, we must encourage the cultivation of those cheap light wines which formerly did so much for southern Europe. At present we discourage the use of these wines to an extent that the want of a market prevents their production, and by discouraging the production and use of the light wines we stimulate the production, and therefore the use, of the heavier wines and brandies against which we so declaim. California has and does produce many qualities of wine which the producer could, with still greater profit, divide into two grades as to quality and prices, as a light and a heavy wine. Our best wines could thus be made to offer a light table wine for general consumption that would be extremely cheap.

Among these wines, we produce the Tokay wine, made from a large meaty grape that is a native of Hungary; the California wine that I

have tested is in every respect the equal of the Hungarian product. A gentleman formerly a resident of National City had a solitary grape-vine of this variety, growing in his chicken-yard, with the branches trailed over a frame extending toward the chicken-house. From the products of this one vine, besides using all required grapes for dessert purposes for himself and wife, he made eighty gallons of light wine and forty more of a first quality of sparkling Tokay that had not its superior in any Hungarian nobleman's cellar. The mode of making this latter or first quality wine was, in its primary methods, superior to any probably adopted even in Hungary, as he carefully washed and picked each grape from the stems and deposited it in a huge flannel, inverted cone stretched on a hoop, and from the pressure of the natural weight of these grapes came the best wine. The subsequent or light wine he secured by the same process, to which in addition he applied the press. This light wine was most agreeable, just the proper article to drive away that wind from the stomach which results from despondency and sourness of temper.

I think that a freer use of this light and cheery wine would be most useful in remedying that tendency to miserliness which is such a growing evil in the nation, and such a natural outcome of our strabismic education as to our way of looking at the world and at people. Without tending to make us as profligate and reckless as Indians who have suddenly acquired some little wealth, or as wealthy as a Mexican peon who has come into possession of fifty cents, it would tend to make us more charitable and generous and put away that unpleasant illusion, which hovers in the horizon of so many, of the over-the-hill poorhouse door opening for our entrance, and that, too, when we are in the midst of plenty. From my experience among many in good circumstances and among the so-called unfortunates who make the poorhouse their last home, I am constrained to believe that when Julius Chambers, in his "Mad World," described the feelings and actions of the happy lunatic, then poor, but formerly very wealthy, who had never known a moment of real happiness until a sudden reversal of fortune's wheel robbed him of all he possessed and landed him a financial wreck and a helpless lunatic in an asylum, feeling rich as a feudal baron, whereas in his previously seeming sanity he had felt poorer than Job's turkey, he (Chambers) wrote from an actually observed case, as the comfortably-off seem actually to suffer more from the fear of poverty than the really poor do from its actual presence. A little exhilarating Tokay wine will not only improve digestion and promote a better assimilation, but it will do away with this form of life-shortening melancholy which, like the formation of the verdigris, eats into the joints of our life.

Besides this grateful and cheerful product of the Tokay grape, California is peculiarly happy in her varied qualities of light Clarets, light Burgundies, and Sauternes, which make most excellent and palatable light table wines. Her sweet wines are too heavy and alcoholic, as well as lacking in bouquet, for either table, dinner, or dessert wines; they are altogether too heady and strong, but some of the heavy-bodied wines of Spain and Portugal are here well reproduced and make excellent dessert wines. We shall, however, not recommend these heavy wines, at least not for the purpose of the subject of this report, especially as we feel that the list of light wines is so extensive that we need not recur to the heavy wines, even if used well diluted with water. Among these

light wines we find the representatives of the vines grown on both banks of the Rhine. A most excellent and fragrant wine, very much like the best brands of Hocheimer, is made in the Sonoma and Napa vineyards. It is here a dry wine, and although a white wine, we have never seen any injurious effects to the nerves following its use. Unlike many of the white wines, it stands watery dilution very well at the time of its use without loss of flavor, and I have often prescribed it as a steady table wine used with water or some of the many *eaux gazeuses* which materially aid its action as a promoter of digestion. No man who uses steadily of the Hoch made in our California vineyards, uses it well diluted and at table, will ever become a drunkard, or a suicidal victim of sober despondency.

We have often drank at our dinners a light wine very much like the German lighter grades of Rudesheimer, made from vineyards in the neighborhood of Los Angeles. During medium dry years the quality of the grapes from whence this wine is made is much better than in other years, and the wine is then also correspondingly much better, both as to body and as to bouquet. The light Riesling—if not too acid, a decided objection to many, especially to those affected with acid indigestion and who cannot use either this or even any sweetish wine without discomfort—is, next to Hoch, one of the most delightful of white wines, although, for my part, I give Hoch the first preference, after which I take either Tokay or Burgundy, avoiding Riesling on account of the slight acidity which I always find to be one of its characteristics. Some of the Tokay wines that I have sampled might be called white wines, as I have seen some as light as Hoch, or as clear-colored as Catawba, although made from a rose-colored grape.

California also produces some excellent wine made from the orange and other fruits. To me, however, these are too bitterish sweet or too syrupy to be used for a beverage, the tendency of which is too often to create an attack of acid dyspepsia. This objection I also find to the use of many of the unfermented wines, as well as to some of the malt preparations, they being of such a sweet taste and of such a syrupy consistence as to bring on attacks of acid indigestion. One of the unfermented wines made from the Isabella, a very dark purplish grape, although of most excellent flavor and a most delightful beverage when diluted with about five sixths of water, I found to be very constipating and therefore an undesirable wine for steady use, unless partaken of in company with a rather relaxing bill of fare. Of course, I have seen those who drank of it very sparingly who did not experience any binding effects; but those who cannot drink either this or any colored wine without becoming constipated should drink light beers.

Sherry, Port, Malaga, Madeira, and Malmsey are all too heavy and rich, and can hardly be classed as table wines. They are fine dessert wines, and also appropriate for lunches, or very useful as tonics where the average light wines are not specifically heavy enough, but must be partaken of in very small glasses. Madeira and Port contain about one half the percentage of alcohol as found in American whisky. Brandies and foreign whiskies contain about 5% more alcohol than the American brands. I should class all these heavy wines—wines averaging above 12.50% of alcohol—as very undesirable for table purposes, although many of these contain a much lighter percentage; for our purpose, the less the percentage of alcohol consistent with the keeping of

the wine in good quality, the better. The celebrated high-priced wines of the Vesuvian vineyards near Naples, and of Sicily, are remarkably heavy, and should only be partaken of very lightly as a dessert wine. The *Lacryma Christi* contains about 20% of alcohol. Luckily, these very tempting wines are not within the financial reach of many.

The dangers to the community from the introduction of native wines as a table beverage are more ideal than real; in fact they are a positive benefit. The late Dr. H. I. Bowditch, of Boston, with whom I enjoyed the pleasure of a long correspondence up to a short time before his death, took a broad and liberal view of this subject—a subject to which he has devoted no little time and very conscientious study; while, with his systematic order of mind, he carefully collected and compared data from every point of the world that could throw any light upon the subject, and in the interest of practical temperance. He watched the growing wine industry of California with considerable interest, as he foresaw in its success a most valuable ally in combating the growing evil of inebriety and immorality. Addressing James Morrison, of Quincy, Mass., who was then very familiar with the subject-matter, and asking him if the fact of wine being made in California tended to drunkenness, or otherwise, he received the reply that, before the introduction of the native wines, drunkenness was quite common in California, but that since the native wines were found in nearly every home, they had supplanted, to a great extent, the use of stronger alcoholic drinks. The introduction of the grape and of the wine-press performed a like beneficent duty for Ohio, as we will see from a note to Dr. Bowditch by Larz Anderson, of that State, who mentions that his fellow-citizen Mr. Longworth conscientiously believed that he was giving the cause of temperance most practical aid by encouraging Ohioans to plant and cultivate the wine grape.

Among the many interesting answers to the inquiries sent out by Dr. Bowditch to broad-minded observers interested in practical temperance work is the following from Y. G. Hurd, of Ipswich, who, after detailing the seeming hopelessness of enforcing prohibition, makes the following observation:

“A visit to Chicago in 1868, and my observation there of the habits of the German population, first brought to my mind doubts that total abstinence will ever be an accomplished fact. I visited the beer-gardens on Sunday, to see how the Germans spent the day. There was a band of music, a dance floor, rude seats and tables like at our New England picnics in a beautiful grove, and lager in such quantities as I had never conceived. Everybody, old and young, drank and seemed to continue to drink during the afternoon. But lager was the only beverage—no liquor, no drunkenness, and no fights or disorderly conduct. The young men and maidens were merry and danced; the elders drank and talked with a gravity and dignity becoming to the respectable German citizen; the children sipped their mug of lager and gamboled on the grass, and all went home apparently sober, to resume without doubt their usual vocations on the morrow. There were probably two thousand persons taking their weekly recreation. And this is only one of half a dozen similar places about the suburbs of the city. Now, if this had been an American or Irish congregation, and the beverage the usual vile concoction called whisky, gin, and brandy, would not the closing scene of the afternoon have been very different? Broken heads, bloody noses,

and the way-side strewn with the wrecks of humanity in a state of beastly intoxication. I thought, if we could be rid of the grosser liquors—banish them—put them in the pale of dangerous drugs, to be dispensed only by the physicians like other poisons, and substitute the lager of the Germans and the light wines of France or of California, should we not be doing our best to exterminate the curse of drunkenness? I expect that we shall yet come to this conclusion.”

Gentlemen of observation who have traveled abroad and have thus become more or less conversant with the habits of southern Europeans, are, as a rule, converts to the temperance influence exerted by the use of light wines, and have all abandoned prohibition as a practical or useful measure. How much and how far this view of the case influences persons in position to judge for themselves may be gleaned from the following relation. It was at a time when American flour was taxed four times as much import duty as was asked for Spanish flour for an entry into Cuban ports, besides paying a certain high percentage of tonnage for in-coming American ships, Spain doing this to protect and favor her own shipping as well as her own productions and manufactures, and also to compel the Cubans to deal more exclusively with the mother country. Horatio J. Perry, of the United States legation at Madrid, labored long and tediously with the Spanish Cabinet and Senate for better terms, and attempted to establish a reciprocity arrangement, by which the light Spanish wines of Castile should be admitted to the United States on a light duty, in exchange for the lowering of the duty by Spain on American flour into Cuba. Although the negotiations did not reach any definite conclusion, Mr. Perry, in a note to Dr. Bowditch, thus speaks of the subject as bearing upon the matter under discussion:

“In my communications to Washington on this subject, I remember to have urged the same argument stated in your letter—that the introduction of cheap and sound wines into our country would be a sanitary measure for the health of our people, and would tend to diminish the vice of drunkenness. I trust it will be so to some extent and after some time. But I greatly fear that the vitiated taste of our people, accustomed to whisky and rum, and other strong alcoholic drinks, would reject the pure juice of the grape as insipid or less agreeable to them. If they did not like cheap wines they would not drink them, and it might be found to result, in practice, that no people can be expected to confine itself to drinking cheap wines except it produces them. I suppose that, if we ever come to produce them, we shall drink them also, and the taste for them will grow into our national habit, whilst the taste for rum and whisky will grow out and decline.”

The consensus of opinion of those who have observed people who grow the vine or who had a taste for light wines, as well as where governments granted facilities for their introduction and use where they were not indigenous to the soil or climate, seems to tend to the same conclusion—that wherever light wines and beers are in use, there temperance prevails and intemperance and drunkenness vanish. Even Thomas Jefferson, a name inseparable from all that is or should be American, the framer of the Declaration of Independence, and one well fitted and capable of passing mature judgment, as he was not only a warm-hearted philanthropist, but also a keen and most intelligent statesman—and who could judge from a broad, comparative, practical experience, having spent considerable time abroad, where he had carefully studied the

habits of people—wrote as follows to M. de Neuville, under date of December 13, 1818:

“I rejoice as a moralist at the prospect of a reduction of the duties on wine by our national legislation. It is an error to view a tax on that liquor as a tax only on the rich. It is a prohibition of its use to the middling classes of our citizens and a condemnation of them to the poison of whisky, which is desolating their homes. No nation is drunken where wine is cheap, none sober where the dearness of wine substitutes ardent spirits as the common beverage. It is in truth the only antidote to the bane of whisky. Fix but the duty at the rate of other merchandise, and we can drink wine here as cheap as we can drink grog, and who will not prefer it? Its extended use will carry health and comfort to a much enlarged circle. Every one in easy circumstances, as the bulk of our citizens are, will prefer it to the poison to which they are now driven by ardent spirits. Our merchants know nothing of the infinite variety of cheap and good wines to be had in Europe, and particularly in France, Italy, and in the Grecian islands, as they know little of the variety of excellent manufactures and comforts to be had anywhere out of England. But why, I ask, should we rest on foreign importation? The vine grows indigenously from far up in Canada down to the Gulf of Mexico, and from the Atlantic to the Pacific coast. Scandinavian adventurers coasting along New England shores centuries ago, found the vine in such profusion that they called it ‘The good vineland.’ Vines grew freely on our hills when New England was first settled.”

Mr. E. H. Faucon, of Milton Hill, in answer to inquiries made to him by Dr. Bowditch, answered as follows:

“So far as my experience—and I may safely say I have been no small traveler—goes, I am decidedly of the opinion that where light ales are used, intemperance is a minimum quantity compared to those countries where are used rum, whisky, brandy, Madeira, and Sherry, and in fact where any kinds of liquor in which the percentage of alcohol is large are drunk. I wish to call your attention to the islands of Porto Rico and Cuba, both of them islands of importance, and where the number of inhabitants is very large. Drunkenness in these islands is very rare, but the use of wine is universal. The Spanish government, wisely, I think, permits the free importation of the wine of Spain into those islands; and they are so cheap, costing the consumer for the common kind about five cents a bottle, and considered so wholesome, that they are used by the poorest classes. Even the caleseros,* exposed both night and day, through sun and rain and late hours, use them freely at their meals, I believe, with good effects. I never saw a calesero drunk or any the worse for his drinking.”

Wise governmental action is therefore quite an important factor in the dietetic and bibulous habits of a nation, as a government, through its wise or unwise action, can often be held directly responsible for the character of liquor drank and for certain phases of national over-indulgences that lead to ruined health or to drunkenness. It would almost seem incredible that the creation of the famed “two- or three-bottle men”—the good, round-bellied and apoplectic complexioned, choleric, and stumpy-legged country English gentlemen, who furnished the

*The calesero is the Cuban coachman and the Havana cabby. One who has never resided in the Tropics can form no idea of the chilly sensations that accompany three or four degrees of fall of temperature in those latitudes; sensations that would drive an American or a Briton to the immediate aid of the brandy bottle to reëstablish a body equilibrium and resistance.

original for the figure of a typical "John Bull" to the caricaturists of England—men who were noted and honored in accordance with the number of bottles of heavy Port wine they could regularly individually imbibe after dinner, before giving up or falling into a sound sleep, or walking off into the outer air to work off the effects, was the direct result of Parliamentary action. It would really seem as if the men entrusted with the care of a nation would be broad-minded and intelligent enough to avoid anything that would entail any such injurious actions upon their constituency.

Such was the case, however, and England's famed "two- and four-bottle men"—possibilities then only existing, as observed by Grant Allen, as a result of a long epoch of health, due to light beer and light wine drinking, but whose stock of reserve health has long since been exhausted by an indulgence and intemperance that was permitted only by a long accumulation of gradually increasing health and resisting constitutions—and the gay roisterers, whose chief occupation, as so well described by Judge Barrington, was to drink themselves so stoneblind drunk that the attendance of a personal valet to extricate his vanquished lord out from the mixture of bodies, arms, and legs that daily encumbered the banqueting hall floor, was as much of a necessity as was the attendance of a stout squire on a knight in the days of good and brave Henry V—days of strife and of pot-metal armor—to extricate and put the fallen knight upright on his feet in case of being downed—men who then drank themselves into oblivious irresponsibility, and but too often awoke to find themselves marching to the field of honor, like poor Winkle of the Pickwick Club, to be slaughtered by fierce and gore-thirsty Dr. Slammers, while in the flower of their youth or in their prime, or, if more fortunate so as to kill their opponents, then to go on demolishing their two, four, or more bottles of heavy-bodied Port, until apoplexy, gouty degeneration, dropsy, or an exhausted patrimony and a debtor's prison, took them, either figuratively or practically, out of this busy and wicked world, were all the actual creation of a thick-headed Parliament.

How all this came about is most interesting. It is a long and halting story, but none the less interesting for all that. We all know what fine connoisseurs of wine the old Romans were. Well, along about the time that Julius Cæsar sent his celebrated laconic message to the Senate at Rome, announcing his arrival in London—a message, by the way, which was so well thought of that it has been many times copied; even Oliver Perry, of Lake Erie fame, is known to have been a great admirer of that dispatch, and is confidently believed to have won the battle of that name solely that he might place himself on record alongside of Julius in sending a like message to *his* Congress—many Roman gentlemen had to go over to England to help manage the affairs of the island, and look after the natives. They built villas, and in the mild climates and rich soils of their new possessions they reproduced the beautiful gardens and luxuriant homes of the Roman suburbs. They planted the vine and made wine, and Gallo-Roman merchants stocked the newly constructed Roman-British cellars with the light dinner and heavy dessert wines of France and Italy, a procedure which enabled the conquerors to get along peaceably and most harmoniously with their new provincials, whom they gradually civilized and inducted into the good habit of drinking light Claret wine and light Moselle with their dinners—habits that were kept up with great benefit until the Puritanization of England.

The good Romans remained in the islands for some four hundred and fifty years, by which time they had got the Britons into tolerably good habits; but were they to return to-day and see how barbarously their pupils have since relapsed they would no doubt be greatly shocked. Having taught the Britons how to make wine, the Britons continued to grow the vine and to make and drink wine, a performance which went on for many generations, as we learn that jolly Jack Falstaff, in addition to being well capon-lined, was also well soaked in sac—a wine similar to our Napa and Sonoma Hoch—which seems to have found favor with all the good palates and long and appreciative gullets of that healthful period. Then, unfortunately for England, came the long and devastating civil wars and the Puritan revolution—the latter an event which is made a great deal of by Hamerton as having totally changed the British character, thought, and general way of acting, so as to make them entirely different from anything on the continent—which greatly destroyed the vineyards, and finally ended by uprooting most of the vines that had escaped destruction, and making “blue ribbon” societies an absolute necessity. The good habits inculcated by the Romans could not, however, be entirely abolished, and Kent and its hops, and enterprising merchants importing light wines, continued to supply the bulk of the unpuritaned population with their favorite beverages, which greatly assisted in maintaining the nation temperate and the populace in exuberant health and a cheerful state of mind.

In the reign of good Queen Anne, however, there came a change over poor England that was far worse than the witch-burnings and other legacies that had been entailed by narrow religious and ethical views. The cause of this great moral, mental, and physical change in the ethics, blood, psychology, and constitution of the unsuspecting Britisher, was the signing of the treaty of Methuen, in 1703, through whose provisions the light wines of France were practically excluded from England; the effect of this treaty being to open the ports of England to the heavy and alcoholic wines of Portugal as a direct discrimination against France. Enmity against France and an unreasoning and bite-your-nose-off-to-spite-your-face sort of patriotism now made the English take a special pride in drinking Port, and from that date began the decline of the use of light wines by the English, and the substitution of the heavy and strongly alcoholic wines of Portugal as the British national beverage; and, for nearly one hundred and thirty years England drank Port wine at her dinners, as the restrictions on light or any other French wines were not removed until 1831.

The intelligent part of the British nation was not wholly blind, however, to the bad results that would follow this injudicious and vicious Parliamentary move, as we are told by Gladstone that the University of Oxford, foreseeing the inevitable evils that would follow the limitations on the importation of light foreign wines—Portugal, owing to soil peculiarities, cannot produce a light wine any more than can the island of Sicily, or some of the heavy sweet grapes now grown in some of the soils of California—of French growth, as well as that it would accustom the nation to stronger and therefore injurious drinking, strongly petitioned and urged upon Parliament the sociological and moral necessity of at once removing the restrictions on the light French wines. All remonstrances were, however, in vain; British patriotism prevailed, and the heavy duties imposed upon the light wines of France, which amounted to their exclusion, went into effect. As remarked by Macau-

lay, the sudden displacement of the French light wines brought about an immediate and very visible injurious change in the customs of the British people. Unable to suddenly accustom themselves to the taste or use of the heavier peninsular wines, which were also much dearer in price, the populace betook themselves to the use of diluted gin—punches made of gin and of rum and other spirits which were cheaper. Families formerly accustomed to light wines at their meals, or accustomed to dispense these as a part of their sociability and hospitality, now were obliged to resort to the use of the various stronger liquors and spirits, with such results to the morality of the nation that their effects were plainly visible all over the land—notably in the increase of crimes.

The injury done to England by these one hundred and thirty-one years of wrong education and enforced wrong customs can hardly be realized. It is this that, in a large sense, is at the bottom of the present declining epoch of British health, when contrasted with the epochs of the rugged health, adamantine livers, and salamander-like stomachs and kidneys which had been bequeathed to the hardy and bluff generations that had furnished the “two- or four-bottle gentlemen,” by the successive former generations that had been reared on the light beers and wines. Not alone were, in the end, the stout-kidneyed gentry vanquished, but the results of the Methuen treaty have left poor England such an inheritance of taste for strong drink and so much inherited gout, rheumatics, debilitated livers and kidneys, and so much inebriety, and moral, mental, and physical wreckage, that it will take whole generations of temperate light-wine drinking to bring back the bluff old islanders or their descendants to their former rugged moral, mental, and physical health.

To one accustomed to take a birdseye view of pathological changes, whether they be of tastes, morals, or in the tissue, the result of this long upward rise in subjecting the system to the steady effects of increasing alcoholization is something fraught with the most disastrous outlook. Tissue becomes accustomed to the steady poisonings, whether these be from the effects of a continued foul air, or from strychnia, arsenic, opium, alcohol, or any other drug that is partaken of in poisonous or sensible doses. The steady dweller in and breather of a highly impure air, contaminated with the exhalations of many lungs, becomes accustomed to a species of intoxication that makes pure air, which is otherwise exhilarating, perfectly insipid; insipid to an extent that many a poor wretch is in misery unless immersed in an atmosphere so foul that one accustomed to a pure air could not exist in it for ten minutes without experiencing symptoms of suffocation or of approaching headache and nausea.

Intoxication is, after all, only a matter of degrees and of kind, rather than a condition due to any one particular or simple article, and wines and beers are, in this respect and in the matter of degree, intoxicants or exhilarating mediums comparable to the effects experienced by variously constituted airs. Some persons may smile at this comparison and consider it very far-fetched, but when we seriously consider that, from a great concentration of animal emanation, the air of a room may be as intensely intoxicant and brutalizing as the effects derived from any of the most adulterated and vile of spirituous liquors, the analogy will not seem so very distant. As an evidence I have but to refer to the experience of the poor Englishmen who were confined in the Black Hole during the first Indian mutiny of 1757. The relation given by Dr. Holwell, one of the survivors, is a most graphic recital of the grow-

ing intoxication and frenzy that took possession of the men while laboring under the influence of that aerial poison, or intoxicant generated from over-respired air; whilst upon himself the gradually increasing effects leaving him after several hours still conscious, are described as leaving him "sensible of no pain and of but little uneasiness, with a stupor coming on apace, in which condition I laid me down to die in peace, and gradually became unconscious."

In a paper presented to the Charleston meeting of the American Public Health Association, in 1890, and published in the XVIth volume of the transactions of that association, I dwelt at length upon the evil effects of impure air, and pointed out its results in inducing a criminal tendency, its proneness to lead to inebriety or chronic drunkenness, and its actions as a general demoralizing agent through the peculiar nature of its poisonous and intoxicating properties. In the course of that paper I wrote as follows:

"A reviewer of Acton's work on prostitution mentions the swarms of child prostitutes that infest the low quarters of London, whose existence he attributes to 'a brutal stupefaction of the moral sense, resulting from an utter ignorance of what is good or evil.' Were I to review the reviewer, I might ask how ignorance alone can cause brutal stupefaction of the senses, either morally or otherwise? In the present age, we fully understand that for all effects there must be a specific, self-sufficient cause. It may not be found at once, but we should neither jump at a conclusion nor cover over our ignorance in the matter by mere figures of speech. Simply saying that their mothers drank alcoholic liquors, and that precept and example have lowered and debased them, even if they are too young to have drank themselves, does not satisfactorily explain the existence of a swarm of child prostitutes, or how they arrive at the stupefaction of the moral senses. My own opinion is, that on alcohol we lay the blame so that we may not blame ourselves for the indifference and neglect of the helpless and lowly of the human family in our neighborhood; it is a certain relief to the conscience to say that they drink—drink has brought it all upon them; we then wash our hands, like Pontius Pilate, and the Passion Play goes on. Drink, however, does aggravate and precipitate many conditions that the poor have in them with a strong inherent tendency," and the tendency finds its origin in their foul-air-poisoned tissues.

The question has often occurred to me, while looking on these helpless children, Is it possible that the philanthropists, statesmen, and moralists are unacquainted with the evil effects of foul air on the tissues and organizations of the young, and through these, on their moral and psychological natures—effects really more potent than those arising from ordinary thermometric differences, or from mere ordinary changes of diet or of drink? That an air whose quality has become so changed that it will give an ordinary gentleman, accustomed to well-aired rooms and to fresh air, feelings of nausea or an inveterate and lasting headache, or even produce in such a man a serious illness, must be poisonous, no one will question or doubt. Such an air has precisely the same effect on the tissues and organization of the young that would be produced by the continued administration of poisonous doses of alcohol or of fusel oil, and the slow, steady effect of this on the nervous system of the susceptible child is to create a morbid irritability, which, sooner or later in life, will call for alcoholic support or stimulation, and make of them, as adults, constitutional drunkards. The little bodies of these poor

children have no more resistance, strength, or endurance than their poor and helplessly drifting little brains are capable of discerning virtue from vice or good from evil as a result of the toxic stupefaction that has slowly but increasingly possessed them; they have become morbidly sensitive in a physical sense, they age early, want has developed a precocious sharpness of instinct, and the foul air that has poisoned their young blood has precociously matured their sexual organs, while the rest of their physique, as well as their moral and mental natures, all lack development—a sad condition of early wreckage, that finds sufficient cause for existence in a foul and vitiated atmosphere without any assistance from any alcoholic drink.

I have purposely dwelt at length upon this generally overlooked but indisputable, as well as most prolific, cause of inebriety, insanity, immorality, and crime among the poorer classes, as, although a most fruitful source of all manner of degeneration, it is a pathway of investigation hardly ever trod by the apostles of temperance—apostles who, while struggling against the use of light wines simply because they are wines, but which are harmless, remain blind to the great nursery of physical and spiritual degeneration contained in the foul air of many of our tenements and dwellings, where the body becomes so irritably constituted that it must, in the end, resort to alcoholic stimulants for maintenance and support. Another phase of this subject which I wish to illustrate by the above explanations, is that light wines bear in a certain relative sense the same position in regard to heavy wines or spirits that light mountain air bears in its exhilarating qualities to the deadening and stupefying atmosphere of some crowded or ill-ventilated room or den. It is not all, as previously remarked, a simple question of an agent, whether it be a wine or an air, which should occupy our attention, but rather the question of the kind and degree, as the quality of the air continually breathed may have a more actually demoralizing and degenerative effect in proportion to the age of the person, his antecedents, and the length of time it is breathed, in connection with the surroundings and occupation, than any like effects that could possibly be produced by light wines. Then, again, while the latter have been proven to be positively beneficial to the cause of temperance, the former, or foul-air inebriety factor, can only result in the most serious damage.

From all the foregoing it will be perceived that temperance does not by any means depend on total abstinence. Not but that the total abstainer is himself, while abstaining, fully and to all intents and purposes the pattern and mirror of the most abstemious temperance; but we must not forget that either the exigencies of his position, class, and mode of labor, habitation, nature and variety of food on which he may have to live or to which he has access, as well as various and varying physical conditions due to inheritance, environment, or occupation, may make his life and condition ever so much the better by the daily use of a little light wine. Not only may this little light wine make his general condition the better, but its absence may, by the demands for stimulants thus created, even be the foundation for the beginning of a long life of intemperate dissipation, ruining him and his family, either physically or morally, for all time to come. It is easy enough to philosophize and to preach ethical conduct, but the poor wretch who, through some means or other, places himself, or is so placed by circumstances, that he needs must, sooner or later, apply to alcohol for support, is, when that time comes, dead to all philosophizing or to any moral or ethical, as

well as to any physiological, lecture. He is then as unreasoning and as impatient of restraint and of deprivation as many of the good-intentioned people at the opposite end of the line, who are unreasoning and impatient in seeing that he cannot and shall not procure his much-needed alcoholic stimulant.

Besides all this, as we have already mentioned, alcoholic inebriety is but a small fraction of the total sum of inebriety—inebriety of various degrees and forms, from that of opium and all classes of narcotics to that caused by tea—that floods the land. The late enervating and wrecking grippe epidemic of several years' duration has largely added to the list and numbers of the nervous wrecks who must fly to some support or other to be able to navigate. It has greatly augmented the cases of American nervousness. Many of these latter will probably leave alcohol or any liquor quite alone, but will choose from the long list of narcotics, soporifics, or from the coal derivatives, such as phenacetine or antipyrine, or the many hypnotics, some one antidote or drug that will give them the much required and absolutely needed bracing and rest. The drug-stores are yearly dispensing an ever increasing amount of these drugs—all good enough for temporary or actually needed but intelligent use—that are fast becoming the destructives of American life, and which, as has been said, are far more extensively used than alcohol. A light wine, by increasing the power and properties of ordinary foods to nourish the system, by creating a better feeling, and by dispelling that brooding apathy, despondency, and settled melancholy which seizes too many of us, is the proper and exhilarating remedy against these evils. Its use will prevent the many from resorting to the great variety of drugs, nervines, and bitters which are advertised for tonics, but which are in the end nothing but treacherous stays to a broken-down man; they are very poor whiskies with some aromatic herbs for flavoring in case of the bitters or medicated wines, and, if steadily used, through their high percentage and quality of alcohol, serve but to initiate their takers into a state of sure but slowly growing and unconscious inebriety.

It is a mistake to imagine that one is free from the dangers of inebriety simply because he or she may be able to "walk a chalk line" or deceive their friends as to their being in the habit of using any stimulants or drug. The secret drinker or drug-taker is the one who runs the greatest risks. We need more manliness and less hypocrisy, more honesty and less cant, if we ever hope to become a sober and temperate nation, healthy in physique as well as in morals. We need less demagogism and more manly statesmanship, less catering to popular or sectarian blind prejudice and arbitrary demands, and more open and honest expression of sentiments. We want to strive more after the substance and less after mere names and mere shadows, and that which we need the most is a more sensible and practical education, one that will enable us to look at things in their true light as well as enable us to know a criminal because he is such, rather than to believe a man is such because he has the odor of a rum omelette.*

In this connection I might add that the peculiarly private nature of the American saloon, its high screen-doors, its high bar, and the rapid drinking, as well as the nature of the strong drinks sold over the bars,

*While the factorial influence of alcohol as a crime-producer is an undisputed and patent fact, it is also a fact that much more crime is attributed to alcoholic inebriety than properly belongs to it. In 1893, out of a total of 4,436 suicides, 1,913 were due to

and the sportive and too loud character of the persons who run many of those institutions, bear about the same origin and relation to American sociology and nationality that the Hebrews enjoyed in Europe prior to their political emancipation through the broad-minded action of Napoleon. The Jewish race could not follow any of the usual industrial or commercial occupations wherein their fellow-citizens made their livelihood. They were restricted to pawnbroking and money-lending, and formed no integral part of the business, industrial, military, or social life of the nation. The adoption of the French, Spanish, or Italian café, or even the German beer-garden, with its cheerful vaudeville performances and the music of the Fatherland, would do away with our much despised and very peculiar saloon, whose proprietor and attendants are driven to the exclusive privilege of discussing horseraces, prize-fightings, chicken-fights, gambling, and the relative merits existing between various houses of ill-repute, and other like elevating subjects, of which the proprietor or lady cashiers for the café of southern Europe are as ignorant as an Esquimaux is of the ethics of Emperor William's court receptions. That the saloon is run so secretly that it dispenses liquors which must be gulped down as if they were some horrid medicine, and that it sells only such fiery liquids instead of light wines or beers, which are only sipped or slowly drank during conversation, and that the saloon man is not considered a mentor or a desirable shepherd for either the young, the middle-aged, or the old, or the single or the married, are all conditions that are but the logical and natural outcome of the position to which we have ascribed it.

We must dispense with some of our Pecksniffianism and be more natural. We are a great bundle of inconsistencies in the matter of the saloon, as we are in other social and ethical matters, and are too unwilling to take a middle-of-the-road or a conservative course. We are forever rushing to some extreme compulsory methods to force ourselves to some other extreme, just as we legislate against prize-fights for moral appearances, and then wish the law that prevents a genuine old Roman boxing match was in Halifax.

In my opinion, saloon licenses are issued altogether too indiscriminately. Continued carousals and drunkenness exercised in any saloon should be cause for revoking its license at once, and only a certain percentage of saloons should be permitted to a given number of the population. Resorts, places of amusement, and gardens of a public nature and for recreative purposes, should not be permitted to sell liquors with alcohol above a certain percentage, and a bar should not be licensed on any account, in any such public places. Every encouragement should be given, on the other hand, to the establishment of the European café, with its tables and chairs, its coffee, its light beers and light wines. We blame the foreign emigrant from the wine countries for much of our drunkenness; whereas, on the contrary, by making him give up his harmless habits and causing him to adopt our own, we have but too often made him into a dissipated wretch. It has been a grievous mistake on our part not to have realized the harmless nature of the drinking

pure despondency, and only 297 to the effects of alcohol; and out of 6,615 murders, only 713 were attributable to the same cause. In 1890, out of 7,836 murders, 1,282 were committed by total abstainers, and 1,267 by drunkards. It is a noteworthy fact, one well recognized by criminologists, that toward the equator crimes due to intemperance are practically unknown. Much that we blindly ascribe to alcohol is really due to climatic or seasonal causes.

indulged in by the German and the French—although the latter, by his comparatively small numbers, could hardly be said to enter into our life as does the German—and ever allowed our national habit in this regard either to mingle with or supplant their customs. They should always have been kept scrupulously apart. By doing so we would have retained and possibly even been able to adopt their customs.

Our habit of confounding all drinking, as well as all classes of light wines and beers, with all kinds of highly spirituous liquors in one great mixed confusion, has here been a source of indescribable injury, and with endless bad results. Like to the English lady, described by Hamerton, who objected to a guest beguiling the dull Sunday hours by violin playing, and who, although told that the music was one of Handel's sacred pieces, retorted that, notwithstanding the music might possibly be sacred, the instrument played upon, being a violin, was certainly anything but a sacred instrument, and therefore she would most certainly ask the gentleman to desist from any further music practice on that day, we have too much overlooked the fact that light beers and light wines can be drank with moderation and with as innocent results as would have followed a masterly execution of an oratorio on the violin. But for this indiscriminate commingling of that which is innocent with that which is brutal or vile, we might have had a better control of the liquor traffic by the establishment of graduated systems of licensing. For example, beer halls, exclusively devoted to the sale of a beer of a specified strength, should be exempt from any license, and if insisting on the dispensation of strong alcoholic liquors, then a *heavy* license should be imposed, just as it should be on all places where strong liquors are sold.

Too many of our good people, wrongly educated, have been terribly afraid of making any compromise with what they erroneously consider a wrong, by admitting that there is a wide difference between drinkers and drinkers, as well as between the various kinds of drink employed—differences which exist and are as widely apart as a diet of skimmed milk from one of corned beef, cabbage, and apple dumplings—and by insisting on seeing a criminal wrong in places and in the use of articles which are considered as right and proper by the majority of the inhabitants of the civilized world. Any attempts at reaching any sensible plan of emancipating our people from the evils of strong drink or intemperance have always proved, as they will always continue to prove, if attempted on like lines, abortive.

Like to the Moslem of old, who gave the world the choice of the Koran or the sword, the prohibitionist only gives the world a choice between total abstinence and a national inebriety that knows neither limit nor ending. This is all wrong, and a sensible view of the case need not necessarily carry with it the idea of any compromise with any wrongdoing. We, here, would look upon a man whose breath indicated that he had partaken of a little claret with his dinner as one doomed to perdition, or capable or liable to commit any crime in the category at a moment's notice, while we overlook the fact that in no country is drunkenness more of a social crime than in countries where wines and beers are the common beverages of the population, and where, to have it known or intimated that one was drunk, would be at once to lose all social or business standing. That drunkenness, or being at times under the influence of liquor, does not convey the same penalties with us, is but too well known, as it is equally well known that we recklessly con-

found the most temperate use of wine with the most debauched habits. By our dictum we have allied all liberal-minded men—even some who are total abstainers from taste, but not from any sectarian principle or prejudice—with the very temperate, the moderate and immoderate drinkers and drunkards, as well as with all the saloon element and the sporting and fast world, with the demi-monde included, in a grand mass, against which we have necessarily waged a most hopeless war in the cause of the impossible condition of prohibition.

Our only hopes are in a rational campaign devoted to the cause of temperance, and when we shall well understand this, we shall then have made a step in the right direction and toward a visible end; and until we learn that it is for temperance, and not for prohibition, that we must strive, and until we can by these means unite all right-thinking people on a common plane, one from which no intelligent person will dissent—no man or woman living will, in their sober moments, no matter how depraved they may otherwise be, countenance or approve of drunkenness, while the major part of the prohibitionists seem to affect to believe that every one opposed to their views favors the most unlimited debauchery—we must expect matters to grow from bad to worse, and that not only prohibition will not prevail, but even the cause of temperance will continually lose ground.

I cannot close this report better than by quoting from Dr. Bowditch's voluminous report presented to the Massachusetts Legislature, in 1871, on the use and abuse of intoxicating liquors and the means proper to remedy the evil results: "While stimulants are universally used and abused by either savage or civilized man, and while this love for stimulation is really one of the strongest of human instincts, and is, by its nature, indestructible, it may be regulated by reason, by conscience and education, or by law, when it encroaches upon the rights of others. Light liquors, such as light wines and beers, should not be classed with ardent spirits, either as to their effects upon man or in the manner of regulating their sale. Ales, beers, or wines, with only 4% or 6% of alcohol, do not intoxicate, and should never be classed with intoxicants. Foreigners, with temperate and harmless tastes, should be encouraged, rather than discouraged, to continue in the exercise of their home customs, while, on the other hand, we should encourage our own people to give up their extreme tastes and habits for strong liquor, and we should favor their adopting the temperate habits and customs of the German or of the Frenchman. The drunkard should be restrained, and very stringent laws enacted looking toward his suppression or care, as his acts and presence are a continued menace, as well as a continued source of discomfort, to the peace of mind and of body, as well as the rights of others. Acknowledged dipsomaniacs should be confined in an asylum for a long period for the purpose of attempting their cure; the confinement being in State institutions, and the commitment should not be for less than two years."

In conclusion, I would also state that the United States do not present the climatic causes for a like degree of inebriety as is observed in the more northern European nations. Our degree of inebriety is therefore altogether unnatural, as well as uncalled for as an existence, and with the example set by California, it is hoped that, in time, inebriety will have been greatly weeded out from many of our States, as the remedy lies in our own cheap wines and cheaper beers, with an education that will lead to their use.

CONSUMPTION (PULMONARY TUBERCULOSIS).

ITS RESTRICTION AND PREVENTION.

(Circular No. 5, Preventive Disease Series.)

The disease commonly known as consumption is the softening period of tubercle of the lungs. Tuberculosis may affect not only the lungs, but the glands of the neck, the kidneys, the spleen, the intestinal glands, the large joints, the membranes of the brain, and other organs of the body; but it is with tuberculosis of the lungs, which is known as consumption, that this circular is intended to treat.

About one seventh of all the deaths in the United States are due to tuberculosis in some form, by far the greater number being from tubercle of the lungs, known as consumption.

Cause of Consumption.—Tuberculosis is produced by the entrance into the body of the germ of the disease, known as the *Bacillus tuberculosis*. This may reach the system in dust-like particles of consumption sputa, or it may enter the system on particles of food, possibly in water and milk. The most common method is the inhalation of dust-like particles of the spittle of persons who suffer from consumption of the lungs.

A consumptive person occupying a room, and being careless with the expectoration, spitting on the floor or on the sides of the walls of the room, is a fruitful source of danger. The sputum becomes dry and friable, and separates into dust-like particles, like motes in the air, conveying germs (which by drying have not lost their life) into the lungs of those who live in the same house.

Predisposition of Persons to Consumption.—Many people believe that consumption is inherited, but the closest investigation has shown that it is not inherited, that only the susceptibility or liability to the disease is inherited. Thus the children of a tubercular family do not necessarily inherit the disease itself, but they inherit the constitution, which, when exposed to the germ, furnishes a soil which propagates the disease with great rapidity, and one after the other succumb. Again, one member of the family, the father or the mother, for instance, may suffer from a slow form of consumption, due to an involvement, perhaps, of but a small portion of the lungs. By careless expectoration they may infect their children, who, being susceptible, will die one after the other, while the parents may continue to live.

A not infrequent manner for the germ of consumption to reach the system, is through the milk of tubercular cows. The milk from a cow that coughs or appears mangy and will not fatten should always be viewed with suspicion. It is better to scald all the milk used in the family. It is safer always to use milk from healthy-looking cows only, and families should refuse to purchase milk from dairies that do not keep their animals in a clean, healthy condition.

The use of tuberculous milk, whether from tuberculous cows or from

nursing a consumptive mother, is most dangerous when the child has small ulcers, commonly called canker sores, in the mouth, and during the teething period. At such times the bacilli may enter the lining of the mouth and penetrate to the glands under the jaw and of the neck, resulting in swollen and suppurating glands, which gradually extend and break through the tissues, and are commonly called scrofulous ulcers of the neck, leaving unsightly scars that last during life. These glands in the neck are connected by small vessels, and one after the other break down and suppurate. They extend down toward the apex of the lungs, and in that way reach the pulmonary tissue and result in infecting the lungs with the germs of consumption.

The breath of a consumptive person is not necessarily dangerous, as the germ is conveyed largely through the expectorated matter, which swarms with bacilli. Still, the expulsive effort to cough may act as an atomizer, and for a moment throw germs into the air; but these being moist attach themselves to whatever they come in contact with, and are not liable to be dangerous to others until they become detached as dried particles and capable of floating in the air.

Self-Infection.—A person swallowing the germs of tuberculosis is liable to self-infection; in other words, to add to his disease by swallowing his sputum. He may suffer from consumption of the lungs, from which it is not impossible for him to recover; but by carelessly breathing the germs which he has expectorated, he may infect portions of his lungs that are still sound, or he may, by swallowing the germs, cause tuberculosis of the bowels, intestinal glands, or other abdominal viscera.

Contagion and Infection.—When we speak of consumption as being contagious or infectious, we do not mean it in the same sense as small-pox, scarlatina, or measles, for it is possible to live alongside and with a consumptive person without acquiring the disease, if the proper precautions be taken to dispose of the sputa. Nevertheless, we know that persons suffering from this disease are frequently very careless with their expectoration. This makes the habitations of such persons dangerous to others, and in the restriction and prevention of the spread of consumption we must render the sputum innocuous, by depriving the germs of life.

Prevention of Consumption.—In order to prevent infection from consumption, discharges from tuberculous patients should be destroyed before they become dry. All sputa should be expectorated on pieces of cloth and burned, or into cups containing a five per cent solution of carbolic acid. If the expectoration be into a handkerchief or napkin, the article should be placed in boiling water for fifteen minutes before it can be considered safe to use again.

All receptacles used in receiving expectoration should be rinsed in boiling water. It is better to expectorate upon pieces of old cotton or linen cloth and burn them.

Cups of waxed or oiled paper should be invented, to be carried in nests, and sold at a moderate price, so that they may be burned after use. These might contain prepared cotton to absorb the secretion and kill the germs. Such receptacles should be used when traveling by rail or steamboat.

Unless more care be taken on the part of persons having consumption,

it will be found necessary to place legal restriction upon their migrations from one place to another. The promiscuous expectoration, by such persons, on the floors of cars, between the seats, on hotel floors, on sidewalks, and in public places generally, renders them not only a nuisance, on account of the unclean habit, but a nuisance that is dangerous to the public health, as liable to infect others. The expectoration is none the less filthy and dangerous because it is an inexorable accompaniment of a hopeless disease.

Hygiene of the Room Where Consumptives Sleep.—Carpets, in houses occupied by consumptive patients, are almost certain to become lodging places for tubercular bacilli. It is better to place on the floor rugs which are not fastened down, so that they may be frequently taken out of doors and exposed to the sun and air. Neither the floor nor the rugs should be swept when dry. Dust on the furniture should be removed by wiping with a damp cloth, and the cloth should be burned at once, or thoroughly boiled before drying.

Body and bed linen should always be boiled in the process of washing. The room of the patient should be large and sunny, and the surface of the walls smooth, so that dust will not become attached. The curtains should be of some fabric which can be washed in boiling water. The floor should be waxed or covered with oil cloth or linoleum, and, as stated before, better to have mats that can be taken out of doors than to have carpets.

Well persons should not sleep in a room recently occupied by a consumptive; in fact, they should not occupy such a room at all until it is disinfected by washing the side walls, doors, and all woodwork, including furniture, with soap and water and then with a solution of one to a thousand of corrosive sublimate; even dishes, knives, forks, and spoons used by consumptives should be scalded before being used.

In some cities the local Board of Health undertakes to disinfect, free of charge, rooms which have been occupied by consumptive patients, when requested to do so.

Precautions to be Taken by Those Who Are Predisposed to Consumption.—

1. Do not live in a damp locality, in a damp house, nor in a house with damp, foul cellar or surroundings.

2. Do not live in a house with defective plumbing or bad drainage.

3. Do not frequent crowded or badly ventilated assembly rooms, nor sleep in close apartments.

4. Adopt an out-of-doors occupation, so as to live in the open air.

5. Avoid as much as possible everything that tends to depress; all excesses should be avoided; and keep free from anxiety and mental and physical overwork.

These causes, by placing the system below par, render the persons less capable of resisting the disease (if exposed to the germs), in such a way as to bring about the development of consumption.

Hospital Rooms in Boarding-Houses and Hotels.—Boarding-houses, hotels, and sanatoria in salubrious regions where consumptives are accustomed to gather for the benefit of locality and pure air, should be provided with rooms especially set apart for the use of consumptive patients. These rooms should possess all the necessary equipments of a hospital; they should not only be well ventilated with light, sun, and air, but the

woodwork should be such as to be readily cleansed. There should be a total absence of hangings and draperies; the walls, if papered, should be with glazed paper and varnished, so as to be washed. The floor should be filled with wax or paraffine, and the bedstead metallic. The conveniences of baths and closets should be modern. Scrupulous cleanliness should be observed.

Such rooms would be no more expensive than ordinarily furnished rooms, and would render the presence of consumptive persons free from danger to those who are in health.

All boarding-houses and hotels, as well as residences of the rich and well-to-do, should be provided with hospital rooms, so that if scarlatina, measles, diphtheria, or such like infectious diseases should break out in the house, it would not be necessary to remove the patient and separate families, to say nothing of the danger to such patient from enforced removal, and to others by exposure to the disease during the process of removal.

Recapitulation in Brief.—Consumption is caused by a germ called the *Bacillus tuberculosis*.

Consumption of the lungs is the softening process of a deposit of tubercules in the lungs.

Consumption is no longer believed to be hereditary, but it is believed that a tendency to acquire the disease is hereditary.

Breathing the germs or swallowing them in food or milk is the most common method of acquiring consumption.

The spittle of a consumptive is full of germs. When the spittle is dry the germs float in the air as little particles of dust, and, lodging in the respiratory passages, may take root, multiply, produce tuberculosis, finally consumption and death.

Do not use milk without boiling.

Do not use milk from cows that will not fatten.

Do not purchase milk from dairies that do not keep their animals in a clean, healthy condition.

Do not permit a consumptive to expectorate on the floor. Insist that cloths which may be burned be used to receive the expectoration.

Let all utensils which a consumptive may use for any purpose be scalded after use.

The Health Officer should invariably be notified of the presence of a consumptive in the house.

It would be better if the sputum of all suspected cases were subjected to a microscopic examination, to determine the presence or absence of the germ of consumption. If the germ be present, it is consumption; if the germ be not present, it is not consumption, but some other affection of the lungs, perhaps less dangerous.

Rooms recently occupied by a consumptive should be thoroughly disinfected before occupation by well persons. They should not only be disinfected, but should be thoroughly washed.

Floors of rooms occupied by consumptives should not be swept when dry.

Hotels, lodging-houses, and sanitarium generally, should be provided with hospital rooms for the use of persons afflicted with consumption or with acute contagious diseases.

The residences of wealthy people should always be supplied with rooms fully equipped to serve as hospital rooms.

Persons inheriting the liability to consumption should choose an out-of-doors occupation; should avoid excesses of all kinds; avoid damp habitations, over-exertion, and all depressing causes, mental and physical. They should, above all things, avoid the presence and habitations of persons afflicted with consumption.

Consumptives should, with all kindliness, be remonstrated with by relations and friends, and gently though firmly admonished concerning their expectoration. They should be given to understand that public opinion will soon bring about a restriction of their liberty, unless they themselves voluntarily and intelligently exercise more care in disposing of their expectoration.

The danger is from the spittle of consumptive patients, from the milk of tuberculous cows, and from the flesh of tuberculous animals. We may guard against the tuberculous flesh and milk with comparative ease, but we cannot so easily escape from the minute atoms that float in the sunlight, and which carry the germs into our lungs, in the air we breathe.

The only way to restrict and prevent consumption is to destroy, at once and forever, the sputum of the sick; and kill all the tuberculous cattle or other animals. A tuberculous animal may cough on the grass, hay, or feed to be used by other animals, thus infecting a large percentage of a herd.

In conclusion, the State Board of Health would earnestly urge that whenever a patient has reached the second or third stage of consumption, indicated by a daily rise of fever, with night-sweats, copious expectoration of purulent matter, with perhaps swelling of the ankles, and diarrhœa, that it is not only folly, but criminal, to send him away for the benefit of climate. Let such patient have the comforts of home, if there be such comforts for the patient. Let him remain where he cannot spread the disease; and when he has passed away, let him be buried with little delay, or what would be far better, the body should be cremated, thus rendering it incapable of doing further injury.

The habit of travel that consumptive people have, tends more than all else to spread the disease, by making it possible to acquire it through an increased number of loci or points where it exists.

When the disease has reached the stage above described, the patient will surely die, and death is then a consummation devoutly to be wished, even by the patient; therefore, kindly and in all gentleness let him realize his condition, but firmly and unyieldingly insist that he shall not endanger those whom he loves best, by careless expectoration. Let him be instructed in this regard by his attending physician, by his friends, by his neighbors, and by the Health Officer, if necessary, until his coöperation and the coöperation of those who care for him, are secured beyond a question.

Until public opinion demands legal restriction of persons affected with consumption, the instruction and education of the public as to its infectious nature, and how to restrict it, are all that can be done.

Medical Treatment.—The medical treatment of patients afflicted with consumption should be left entirely to the attending physician. It is not in the province of preventive disease circulars to indicate the medical treatment of the sick. These rules are for the guidance and instruction of the people who have to care for the afflicted.

A STUDY OF MILK IN RELATION TO HEALTH AND DISEASE.

By GEORGE M. KOBER, M.D., of Fort Bidwell, California.

According to the United States census of 1890, the average annual production from 16,511,950 milch cows was 5,209,000,000 gallons of milk, 1,024,000,000 pounds of butter, and nearly 19,000,000 pounds of cheese; the average annual consumption per capita being 126 quarts of milk, 33 pounds of butter, and 16 pounds of cheese. These large quantities give an indication of the extent of milk consumption, of the danger from an impure supply, and of the temptation, from a monetary point of view, to the practice of fraudulent and more or less harmful adulterations.

The official or legal standard composition of milk varies somewhat in different States and cities. It is lowest in New York, New Jersey, and the District of Columbia, the requirements being 3% of fat and 9% of solids not fat; it is highest in Massachusetts, 3.7% of fat and 9.3% of solids not fat. But these standards do not prevent adulteration by unscrupulous dealers, and one of the most common frauds appears to be the removal of cream and the addition of just enough separated milk to make a mixture that will come within the limit of the standard.

Analyses of milk sold in New York City showed an average dilution with 33% of water, the fraud amounting to \$10,000 per day. The State Inspector for New York found an average of 12% of water added and 20% of cream removed.

According to Dr. Spiegelhalter, St. Louis, Mo., loses nearly \$2,000 daily by the removal of cream.

In the City of Chicago a bureau of milk inspection was created in 1892, and the milk-supply of the city has been improved materially thereby, yet in 1894, of the 12,093 samples examined, 4,320 were below the standard.

These facts indicate the desirability of stringent laws governing the milk traffic as a protection to the pocket of the consumer; but an analysis of the evidence presented in the following pages, together with the fact that milk constitutes one of the best culture media for disease germs, clearly shows that the dairies should be under sanitary control to prevent the propagation of disease by infected milk. This sanitary control should include inspection by competent veterinarians, so that the milk of all animals suffering from disease may be excluded from the supply. This is especially true of bovine tuberculosis, erysipelas, anthrax, pleuro-pneumonia, foot and mouth disease, septic and other fevers, specific enteritis and other intestinal disorders, rabies, tetanus, garget and other inflammatory conditions of the teats and udder.

The milk of animals five days before and five days after parturition is also unfit for human consumption. The cow stables should be separate from other stock and poultry yards; they should be spacious, well ventilated and lighted, with cemented floors, proper drainage, and clean hay

or straw for bedding. The animals should not be allowed to feed on pastures with stagnant water or noxious weeds, particularly euphorbiaceous and ranunculaceous plants, nor upon the swill or products from distilleries, breweries, glucose factories, etc. There is especial danger in allowing animals to wade in filth and polluted streams, or to feed in pastures where the grass reeks with sewage filth left upon it by the receding tides, because the germs of typhoid fever may cling to the udder and teats and thus contaminate the milk.

The water-supply should be ample and of a pure quality, and the feeding should be arranged to secure the best possible results as regards the health of the animals and excellence of the milk. An abundance of wholesome pasture in season, with hay and meal fodder, should be allowed.

The cows should be groomed daily and the teats and udders washed before milking with water previously boiled; and the requirements of cleanliness should apply with equal force to the milkmen, both in their persons and clothing.

All persons engaged in handling the milk should be free from disease. Milk should not be permitted to leave a farm or dairy during the existence of typhoid fever, diphtheria, or scarlet fever among the employes or inmates. Dr. S. C. Busey and the writer, in a report on morbid and infectious milk,¹ have recently tabulated no less than 240 such epidemics, all traceable to the milk-supply. Of these, 187 were reported by English, 31 by American, and 9 by Scandinavian observers; while 8 came from German, 3 from Australian, and 1 each from French and Swiss sources; and right here it is suggested that the infrequency of milk typhoid in France and Germany is due to the fact that milk is rarely used in its raw state on the Continent of Europe.

To prevent loss under the restrictions necessary during the prevalence of infectious disease on a farm, the utilization of the milk may be authorized for butter production after proper sterilization under the direction of the health board.

The milking should be done in a dust-free atmosphere—preferably on cemented floors previously sprinkled, in order to reduce the number of germs to a minimum.

It will be shown in subsequent pages that, no matter how great the care exercised, cow's milk is never free from ordinary bacteria, and the best way to prevent their proliferation, and consequent rapid souring of the milk, is to pasteurize it at the farm, by exposing it to a temperature of 170° Fahr., and then rapidly cooling it to a temperature of 45° Fahr., in which condition it ought to be delivered to the consumer. The bottles for delivery should be cleansed by steam or a boiling solution of caustic soda, with subsequent washing in sterilized water. They should be closed with patent stoppers, and properly labeled for specification of contents, whether "full" or "skimmed" milk, and for the identification of dealers. The retailer should be registered, and be required to furnish a list of customers; and the names of the latter should be arranged on the index-card system at the health office, so that the simultaneous occurrence of infectious diseases in families, supplied by the same dairy or dealer, may the more readily be discovered.

With these preliminary remarks on the necessity for sanitary control of dairies, the writer hopes that a perusal of the following pages will tend to lessen the dangers, diminish the sum total of human suffering,

and reduce the frightful infantile mortality now caused by contaminated milk.

My special thanks are due to Drs. J. S. Billings and S. S. Adams, of Washington, D. C., and to Messrs. Clark, Hall, and Rose, of the Library of the Surgeon-General's Office, for valuable assistance in the preparation of this report.

I. NORMAL MILK.

Milk is the secretion of the lacteal glands, and is an emulsion, *i. e.*, a fluid which holds fat globules in suspension, it also contains sugar, salts, and albuminoids; it is an opaque fluid, varying in color from bluish-white to yellowish-white. The milk globules are composed of neutral fats—the tri-glycerides of oleic, palmitic and stearic acids—and from 0.0015 to 0.009 mm. in diameter. The chief albuminoids in milk are *casein* (which varies from 2% to 4½%), *peptone* (from .08% to .1%), and *lact-albumen* (from .1% to .4%). The amount of the other albuminoids present in milk have not been determined. Casein is distinguished from them by being coagulated by acids and by rennet. The chemical nature of casein is not very clearly understood; it is believed to be similar to alkali-albumen, but differs in this, that casein is precipitated by rennet, while alkali-albumen is not. When milk is heated, the casein is not coagulated, but the other albuminoids are. Lactalbumen is in a state of complete solution, and is similar to the serum albumen of the blood. (Cameron and Aikman, 1894.)

Sugar is present in the form of lactic sugar, and the salts are represented by potassium, sodium, lime, magnesia, and iron in combination with phosphoric, chloric, and sulphuric acids. According to Fleischmann the composition of the salts in cow's milk is as follows:

K ₂ O	NO ₂ O	CaO	MgO	Fe ₂ O ₃	P ₂ O ₅	SO ₃	Cl
24.5%	11.0%	22.5%	2.6%	0.3%	26.0%	1.0%	15.6% (—3.5% for Cl and O)

Milk also contains carbonic acid and nitrogen in a gaseous form, and certain aromatics; it has a sweetish taste, and the odor of cow's milk, if proper cleanliness has been observed in washing the udder before milking, has none of the flavor suggestive of its source, but is similar to that of sweet nut-oil.

The quantitative composition of milk varies with the species supplying it. The following table is based upon averages of a large number of analyses, quoted by Uffelmann,² according to which—

100 Parts of—	Albuminoids.	Fat.	Sugar.	Salts.
Cow's milk contains.....	4.00	3.40	3.80	0.60
Goat's milk contains.....	3.50	3.90	4.40	0.80
Mare's milk contains.....	2.08	1.18	5.30	0.40
Ass's milk contains.....	2.22	1.64	6.00	0.30
Sheep milk contains.....	6.31	6.83	4.73	0.20
Human milk contains.....	2.20	3.45	5.00	0.80

It will be seen at a glance that woman's milk is much sweeter than cow's milk, and also contains less albuminoids and salts; the milk from the sheep contains the most, and mare's and ass's milk the least, amount of nutritive elements, while cow's and goat's milk occupy a

medium place. However, it should be remembered that milk from any source varies considerably in composition, and is greatly influenced by the breed and condition of the animal, the character of food, the period of lactation, age, etc. According to Becquerel and Vernois,³ cows at the age of four are in their prime, and supply the most nutritious milk. As this paper is dealing exclusively with cow's milk, hereafter the term milk, unless otherwise stated, has reference to the secretion from the cow, which in composition has been known to fluctuate as follows:

Volume of protein, from.....	2.04—6.18
Volume of fat, from.....	1.82—7.09
Volume of sugar, from.....	3.20—5.67
Volume of salt, from.....	0.50—0.87

Results of Breed-Tests Conducted by American Agricultural Experiment Stations.

Quoted by F. W. Woll in his Dairy Calendar for 1895.

Breed.	No. of Cows Included.....	No. of Lactation Periods.	Average Yields per Lactation Period.		Average Per Cent Fat.
			Milk.	Fat.	
			lbs.	lbs.	
New York (Geneva)—					
Jersey	4	10	5,788.5	332.4	5.74
Guernsey	4	8	6,450.8	347.7	5.39
Holstein	4	6	9,946.3	312.8	3.15
Ayrshire	4	11	6,816.8	242.2	3.55
Shorthorn	2	2	5,642.9	242.1	4.29
Devon	4	8	4,118.6	180.9	4.39
American Holderness	2	6	4,894.0	176.7	3.61
Maine—					
Jersey	2	4	5,460.0	297.0	5.50
Holstein	2	3	8,369.0	285.0	3.47
Ayrshire	2	4	6,612.0	233.0	3.67
New Jersey—					
Jersey	3	3	7,695.0	376.3	4.89
Holstein	3	3	8,455.0	300.2	3.55
Ayrshire	4	4	7,461.0	275.3	3.69
Shorthorn	3	3	10,457.0	396.3	3.79
Guernsey	4	4	7,446.0	379.0	5.09

Averages for All Breeds and Lactation Periods.

Jersey	9	17	6,048.0	331.8	5.49
Guernsey	8	12	6,783.0	358.2	5.28
Holstein	9	12	9,179.0	302.7	3.30
Ayrshire	10	19	6,909.0	247.3	3.58
Shorthorn	5	5	8,531.0	334.6	3.92
Devon	4	8	4,119.0	180.9	4.39
American Holderness	2	6	4,894.0	176.7	3.61

The animals in the foregoing breed-tests rank on the average as follows:

1. As to yield of fat: Guernsey, Shorthorn, Jersey, Holstein, Ayrshire, Devon, American Holderness.

2. As to yield of milk: Holstein, Shorthorn, Ayrshire, Guernsey, Jersey, American Holderness, Devon.

3. As to richness of milk: Jersey, Guernsey, Devon, Shorthorn, American Holderness, Ayrshire, Holstein.

Average Percentage Composition of Milk from Different Breeds. (König.)

Name of Breed.	No. of Anal-yses.	Water.	Fat.	Casein and Albu-men.	Milk Sugar.	Total Ash.	Total Solids.	Solids not Fat.
Steyer (Austrian).....	12	86.90	4.17	3.24	4.96	.73	13.10	8.93
Simmenthal (Swiss).....	6	87.26	3.79	2.64	5.81	.70	12.74	8.95
Tillerthal (Tyrolean).....	22	87.43	3.70	3.07	5.10	.70	12.57	8.87
Voralberg (Austrian).....	19	87.38	3.54	2.91	5.40	.77	12.62	9.08
Algau (Bavarian).....	4	87.88	3.20	3.22	5.13	.57	12.12	8.92
Bohemian.....	2	86.00	5.06	3.67	4.63	.64	14.00	8.94
Holstein.....	24	88.04	3.25	3.99	4.16	.56	11.96	8.71
Oldenbug (German).....	18	87.95	3.38	3.10	4.81	.76	12.05	8.67
Angler (Danish).....	10	88.15	3.12	.....	.....	.....	11.85	8.73
Shorthorn.....	67	87.20	3.47	3.21	5.43	.69	12.80	9.33
Devon.....	20	86.57	4.44	.....	.....	.64	13.43	8.99
Ayrshire.....	43	86.93	3.58	3.42	5.43	.64	13.07	9.49
Jersey.....	31	85.90	4.32	3.34	5.70	.74	14.10	9.78
Guernsey.....	26	85.39	5.11	3.98	4.38	1.14(?)	14.61	9.50
French.....	12	87.20	3.90	3.07	5.06	.77	12.80	8.90
Scandinavian.....	4	88.00	3.51	2.76	4.97	.76	12.00	8.49

Average Yield and Composition of Milk of Different Breeds. (Hecho.)

Quoted in Woll's Dairy Calendar for 1895.

Breed.	Live Weight, lbs.	Annual Yield.		Average Per Cent.			Per 1,000 lbs. Live Weight.	
		Milk, lbs.	Fat, lbs.	Solids.	Fat.	Solids not Fat.	Milk, lbs.	Fat, lbs.
Shorthorn.....	1,300	6,800	260	12.9	3.8	9.1	5,200	200
Brown Swiss.....	1,300	7,300	275	13.0	3.8	9.2	5,600	210
Holstein.....	1,100	7,700	230	11.8	3.0	8.2	7,000	210
Guernsey.....	1,050	6,600	330	14.7	5.0	9.7	6,300	310
Ayrshire.....	1,000	6,600	245	12.5	3.7	8.8	6,600	245
Jersey.....	900	6,600	300	14.7	5.0	9.7	6,700	330
Angler.....	900	6,600	240	12.0	3.4	8.6	7,300	270
Kerry.....	550	5,000	190	12.5	3.8	8.7	9,000	350

Results of English Milking Trials.

(Averages of breed-tests conducted at the annual dairy shows of the British Dairy Farmers' Association, 1879-93 inclusive.)

Total Number of Animals.	Breed.	Average Yield of Milk Per Day. Lbs.	Total Solids. Yield per Day.		Fat. Yield per Day.		Solids not Fat. Per Cent.	Live Weight. Lbs.	
			Lbs.	Per Cent.	Lbs.	Per Cent.			
178	Shorthorns.....	44.03	5.659	12.85	1.664	3.78	9.07	1,403	*28
202	Jerseys.....	27.58	4.033	14.62	1.372	4.96	9.66	832	44
77	Guernseys.....	29.36	4.186	14.26	1.418	4.83	9.43	1,038	13
10	Holstein (Dutch)....	45.19	5.534	12.25	1.540	3.41	8.84	1,383	3
18	Ayrshires.....	37.82	5.086	13.45	1.595	4.22	9.23	1,060	7
2	Devons.....	30.12	4.319	14.34	1.476	4.90	9.44	.....	.....
8	Red Polls.....	35.11	4.551	12.96	1.377	3.92	9.04	1,201	5
1	Welsh.....	46.00	5.860	12.74	1.914	4.16	8.58	.....	.....
1	Aberdeen Angus.....	60.30	8.285	13.74	3.009	4.99	8.75	.....	.....
12	Kerries and Dexter	.....	.....	.....	.....	.....	.....	.....	.....
33	Crosses.....	26.59	3.555	13.37	1.110	4.18	9.19	749	9
		42.94	3.654	12.78	1.569	3.65	9.13	1,339	7

* Average for 28 animals, etc.

The milk first secreted after parturition, known as colostrum or beastings, contains less water and more albumen than casein, also more sugar and salts, than the milk given at a later period; it is viscid, turbid, yellowish, with a sickly odor and purgative properties, and, according to König,⁴ has the following composition: Albumen, 6.77%; fat, 3.57%; sugar, 4.68%; salts, 0.82%; water, 84.16%.

In regard to the influence of food upon the composition of milk, it has been shown by Wolff that a large amount of albuminoid food increases the quantity of fat in the milk, but according to Kühne and Fleischer,⁴ diminishes the percentage of lactic sugar. Bran and malt mash and oil cakes appear to increase the amount of fat, but not of albumen and sugar; Girard ascertained that dry food results in a larger amount of albumen, fat, sugar, and salts.

The effects of swill food and distillery and brewery refuse on the milk have been studied for many years. According to Ohlsen,³ the milk of swill-fed animals varies greatly in composition, depending largely upon the amount and character of the additional food; such a milk may, at times, be perfectly normal, and again quite deficient in nutritive elements; in general, it is more watery, deficient in fats and salts, especially the lime salts.

The milk varies in composition at different periods of the day and during the different stages of the milking; morning's milk is generally more watery than evening's milk, and the milk which comes from the cow toward the end of milking contains more cream than that which is first given, which is said to be due to the rising of the fat in the gland. According to Uffelmann²—

	Water.	Albumen.	Fat.	Sugar.	Salts.
Morning's milk contains.....	87.45	3.30	3.81	4.70	0.74
Evening's milk contains.....	86.92	3.35	4.28	4.71	0.73
First stage of milking contains.....	91.50	2.14	1.49	4.10	0.71
Second stage of milking contains.....	90.11	2.36	2.37	4.50	0.76
Third stage of milking contains.....	88.96	2.06	4.10	4.06	0.76

Violent exercise and overheating or working the animals, as in some parts of Europe and in the Southern States, are injurious to the quality of the milk.

The *reaction* of cow's milk is quite variable. If fresh, and from a healthy and properly cared for animal, it should be "amphoteric" or alkaline. This is due to the fact that milk contains NaH_2PO_4 , which has an acid reaction, and also Na_2HPO_4 with an alkaline reaction. When milk is boiled, it becomes more alkaline. Milk is often acid, especially from swill-fed animals; but this, according to Ohlsen's investigation, is by no means always the case.

The *specific gravity* varies with the quality, and fluctuates between 1029 and 1034, with an average of 1030.8.

Cream. If milk is allowed to stand quietly in a vessel or broad shallow pan, the oil globules, by reason of their light specific gravity, rise to the surface, and, on account of their albuminoid constituents and consequent cohesive properties, they carry along certain amounts of sugar and salts, forming a film of varying thickness.

Sweet cream, according to König,⁴ contains: Water, 66.51%; albumen,

3.61%; fat, 26.75%; sugar, 3.52%; and salts, 0.61%. Vieth,⁶ in examining cream obtained from milk by a centrifuge, found it to contain: Water, 32.59%; albumen, 4.61%; sugar, 4.61%; fat, 50.36%; salts, 0.42%.

The normal average of cream is about 10% of the volume of milk, and if it falls much below this, it indicates a poor quality or that the milk has been watered; the cream may exceed 20%, depending largely upon the breed and other conditions already mentioned.

Changes in the Milk. Milk, after standing several hours, assumes an acid reaction, which is the result of the conversion of milk-sugar into lactic acid, brought about by the agency of several species of micro-organisms, chief of which is the *Bacillus acidi lactici*,⁷ which finds in milk a very suitable medium for its multiplication, and develops best at a temperature of between 95° and 108° Fahr., but ceases to grow altogether at a temperature of 50° Fahr. When sufficient lactic acid is present to fix the alkalies, casein is set free and the milk coagulates. In the meantime, a portion of the albuminoid bodies, albumen as well as casein, is converted into peptones through the agency of other micro-organisms. The bacilli of butyric acid for example, not only possess the power of forming this acid, but also, like rennet, of coagulating casein and transforming it into peptone; and other saprophytic microbes are believed to possess similar properties. (See also Dairy Bacteriology.)

II. PREPARATIONS OF MILK AND DAIRY PRODUCTS.

1. *Skimmed Milk* is the residue after the cream has been removed, and has the following average composition: Water, 90.63%; proteid, 3.06%; fat, 0.79%; sugar, 4.77%; and is especially indicated in delicate stomachs, which cannot take fat.

2. *Boiled Milk* has lost its natural gases and aromatics, also some of its watery constituents; when boiled in an open pan the loss of weight, even after the first ebullition, amounts to 5%, as compared with a loss of 0.5% to 1% when boiled in a long-necked bottle. Owing to the loss of CO₂ in boiling, milk loses its amphoteric reaction and becomes alkaline with a flat taste. The coat of cream upon the surface of boiled milk contains about 21% of albumen, 10% to 16% of fat, with small amounts of sugar and salts, and from 60% to 62% of water; this scum can be entirely prevented by boiling the milk in a narrow and long-necked flask. Whilst Albu, Soltman, and J. Munk assert that the digestibility of boiled milk is greater than that of raw milk, Uffelmann finds that there is no difference in that respect; but for reasons which will be fully explained hereafter, the consumption of raw milk is fraught with danger, and sterilization seems absolutely necessary to prevent infection, especially of the germs of tuberculosis, typhoid fever, scarlet fever, diphtheria, foot and mouth disease, anthrax, etc. Boiling will also arrest the growth of fungi and destroy the *Bacillus acidi lactici*, and many other saprophytic germs which cause the process of souring; and this simple expedient enables us, therefore, not only to keep the milk much longer fresh and sweet, but also to kill such disease germs as may be present.

3. *Buttermilk* contains all of the constituents of milk; the amount of fat is, of course, reduced, as well as of milk-sugar, which has been largely converted into lactic acid. The composition of buttermilk is as follows:

Proteid.	Fat.	Sugar.	Salts.	Lactic Acid.	Author.
3.60	0.50	4.06—	0.85	0.80	----- Vieth.
3.48	1.25	3.30	0.65	0.32	----- J. König.

The presence of lactic acid imparts an agreeable taste, and as the milk still contains considerable nutritive elements, with the casein in a very flocculent form, and has the additional advantage of being cheap, it is considered a very desirable article of food. It should be consumed quite fresh, as it soon decomposes; the presence of lactic acid and other ferments are, moreover, liable to induce colic and diarrhœa in children and in persons with feeble digestion. It, however, appears to agree with persons in whom there is incomplete digestion of fats and peptones; also, according to Eulenberg, in cases of chronic gastric catarrh with atrophy of the gastric glands; the "buttermilk cure" has also been employed in the treatment of Bright's disease.

4. *Butter* is made by churning the cream of milk. In consequence of some violent agitation, the fat globules coalesce and then adhere together in small masses, containing also some slight quantities of casein, serum, sugar, and salts, as follows:

Fat.	Albuminoids.	Sugar.	Salts.	Water.	Author.
85.37	0.97	-----	0.74	12.92	----- Vieth.
83.27	0.71	0.58	0.95	14.49	----- König.

Twenty-five to thirty liters of milk usually yield about 1,000 grms. of butter. The presence of too much water or of ingredients other than fat shows that it has not been sufficiently worked, and this, together with exposure to sunlight, favors germ development and the production of butyric acid, and we get our "rancid butter," which is likely to cause violent gastric derangement. Fresh butter, without salt, is not only quite tasteless, but also keeps poorly, hence the addition of 25 grms. of common salt per 1,000 grms. of butter, together with facilities for cold or cool storage, is quite necessary to prevent rancidity; this may also be accomplished by keeping it under fresh water renewed every day, by the addition of weak tartaric acid, or by melting it down with boiling water—the "smalt process" (Thompson⁸).

The *digestibility* of butter, if taken in moderate quantities, is remarkably good, as nearly 98% is utilized. The value of bread and butter as a foodstuff has always been recognized, and, according to Brunton, the ingestion in this form, or on toast thinly spread, prevents it from floating about and coating the walls of the stomach and retarding gastric secretion. Butter is frequently adulterated by the addition of suet, oleomargarine, coloring matter, buttermilk, excess of water and salt, or potato-starch, flour, etc.

5. *Cheese*. In the manufacture of cheese, casein and the milk fat are precipitated by the addition of rennet to sweet milk, preferably at a temperature of about 120° Fahr., which insures firmer coagulation. The curds are then pressed in a mold, which removes the whey and reduces the mass to a proper consistency, to which a little salt or other spices have previously been added. The mass is now dried on the surface by frequent turning in the air, and allowed to ripen, during which, according to the amount of atmospheric humidity present, it loses from 10% to 20% of water. During the process of decomposition the milk-sugar is converted into lactic acid, a portion of the fat into free fatty acids, and a part of the casein is transformed into peptone and organic bases like leucin, tyrosin, butylamin, and amylamin—it may, however, putrefy and evolve ammonia and tyrotoxin. The organic bases mentioned are the result of different ferments, and enter into combinations with the lactic acid, in consequence of which the green cheese assumes a yellowish color, a fatty character, and a neutral or alkaline reaction, and acquires its aroma and piquancy. (See Dairy Bacteriology.)

Pot cheese is often eaten fresh, after the whey is pressed out. It contains: Water, 60.27%; casein, 24.84%; fat, 7.33%; ash, 4.02%; sugar and lactic acid, 3.54%.

The *nutritive value* of cheese, whilst very great, depends, of course, largely upon the amount of cream used in the milk, and upon the care taken in its manufacture. Most of the cheeses are made from normal milk; in some of the rich English and Swiss cheeses, cream has been added, whilst still others, like the Dutch, Parmesian, and some of the American cheeses, are made from skimmed milk. The latter varieties usually keep better, and are hard enough to be grated. The following table, taken from Uffelman's Hygiene,² gives the composition of some well-known varieties:

	Albumen.	Fat.	Sugar.	Salts.
Chester cheese	27.68	27.46	5.89	5.01
Edam cheese	24.07	30.26	4.48	4.91
Emmenthaler cheese.....	32.42	29.67	.....	4.78
Dutch cheese	29.48	26.71	2.27	4.62
Holstein cheese	23.24	25.00	3.64	4.17
Roquefort cheese.....	27.69	33.44	3.15	5.35
Neufchatel cheese.....	17.44	40.80	5.21	2.05
Parmesian cheese	41.19	19.52	1.18	6.31

The *digestibility* of cheese is very good; 96% of its albumen, 97% of the fat, and 100% of the carbohydrates are utilized, provided it is ingested in moderate quantities, preferably in very thin slices or grated, and should never be taken in the form of "toasted cheese." The richer cheeses, unless eaten quite sparingly, are very apt to produce dyspepsia.

Cheese has been known to be adulterated by the addition of flour, starch, foreign fats, and coloring matter. It may be rendered totally unfit for use by the presence of molds and fungi, the cheese mite, maggots, and especially by the presence of "tyrotoxin," the product of saprophytic microbes, which causes symptoms allied to those of "belladonna poisoning."

Cheese may also absorb lead from its tinfoil wrappers, and has proved poisonous in cases where henbane seed had been accidentally substituted for caraway seed.

7. *Whey* is the serum which remains after the curds have been pressed out from the milk to make cheese. This fluid contains: Water, 93.3%; sugar, 4.65%; fat, 0.25%; proteid, 0.82%; lactic acid, 0.33%; salts, 0.65%. It is believed to possess sudorific and diuretic properties, and has been employed in the treatment of fevers and in gastric catarrh and Bright's disease. The "whey cure" is frequently combined with the "grape cure," or some easily digested food. Not over 500 grms. per day are tolerated, and larger quantities are apt to cause colic and diarrhœa.

8. *Milk Conserves*. Milk may be rendered more stable either by boiling, as already indicated, or by exposure to cold in the various milk-coolers. Swarz suggests that the milk should be strained, immediately after milking, into oval pans, placed upon ice, and brought to a temperature of 36°-45° Fahr.; but as an additional safeguard, the writer believes that it should be sterilized before it leaves the milk farm and after reaching the house. Antacids, like sodium carbonate or borate, or the addition of salicylic acid, cannot be recommended for the purpose of keeping the milk sweet.

9. *Condensed Milk*. There are a great number of brands in the market, all made by the slow evaporation of the water of the milk by moderate heat, with or without the addition of sugar.

In the plain variety, the milk is condensed to about one third or one fifth of its original volume, and the average composition of ten American brands was found to be as follows:

Water.	Fat.	Albuminoids.	Sugar.	Ash.	Analyst.
45.59	15.67	17.81	15.40	2.53	----- Hehner, quoted by Woll.
57.96	16.02	8.50	16.32	2.20	----- Voelker.
51.72	14.33	11.69	19.51	2.75	----- Voelker.
51.76	15.34	12.66	17.07	2.49	

When either cane- or milk-sugar has been added, the condensed milk may contain from 36% to 75% of sugar, 8.82% of albuminoids, 8.67% of fat, and 1.83% of salts. The advantage of condensed milk consists in the fact that it can be readily kept, even after the can is opened, provided it is again covered up, and is therefore useful for long sea-voyages, field service, and in the tropics. During the hot months it has been largely used in the feeding of infants, especially by the poorer classes, with questionable results.

10. *Milk-Wines*, like "koumiss" and "kefyr," are made from mare's or cow's milk, respectively, and are the products of a peculiar fermentation, combining alcoholic with lactic acid fermentation. The best koumiss is made on the plains of southeastern Russia, from well-selected mare's milk, in the early summer months. The milk is put into smoked-out leather bottles, and koumiss or kefyr ferment is added. These kefyr grains contain, apart from yeast-fungi, also a specific lactic acid germ, and the *Bacillus kaukasicus*, collected from receptacles previously used for the fermentation of the milk. The skins are kept warm and frequently shaken, and at the end of three or four days the

fermentation is completed. Koumiss is also made from cow's milk and the addition of a portion of the previous brewing, and also a little yeast. In either event, the beverages contain, in addition to the constituents of the milk, also alcohol and carbonic dioxide in the following proportions:

	Native Koumiss.	Cow's Milk Koumiss.	Kefyr.
Albuminoids	2.20	2.35	3.12
Fat	2.12	2.07	1.95
Sugar	1.53	1.81	1.62
Lactic acid	0.90	0.40	0.83
Alcohol	1.72	1.90	2.10
Carbonic acid	0.85	0.80	0.92

Flügge, quoted by Sternberg, gives the following directions for the preparation of this drink: "Two methods may be employed. In the first, the dry, brown kefir grains of commerce are allowed to lie in water for five to six hours until they swell; they are then carefully washed and placed in fresh milk, which should be changed once or twice a day until the grains become pure white in color, and when placed in fresh milk quickly mount to the surface—in twenty to thirty minutes. One liter of milk is then poured into a flask, and a full tablespoonful of the prepared grains added to it. It is allowed to stand open for five to eight hours; the flask is then closed and kept at 65° Fahr. It should be shaken every two hours. At the end of twenty-four hours the milk is poured through a fine sieve into another flask, which must not be more than four-fifths full. This is corked and allowed to stand, being shaken from time to time. At the end of twenty-four hours a drink is obtained which contains but little CO₂, or alcohol. Usually it is not drunk until the second day, when, upon standing, two layers are formed, the lower milky, translucent, and the upper containing fine flakes of casein. When shaken it has a cream-like consistence. On the third day it again becomes thin and very acid.

"The second method is used when one has a good kefir of two or three days to start with. Three or four parts of fresh cow's milk are added to one part of this, and poured into flasks, which are allowed to stand for forty-eight hours, with occasional shaking. When the drink is ready for use a portion ($\frac{1}{5}$ to $\frac{1}{3}$) is left in the flask as ferment for a fresh quantity of milk. The temperature should be maintained at about 65° Fahr., but at the commencement a higher temperature is desirable. The grains should be carefully cleaned from time to time, and broken up to the size of peas. The cleaned grains may be dried upon blotting-paper in the sun or in the vicinity of a stove; when dried in the air they retain their power to germinate for a long time."

The specific gravity of these milk-wines fluctuates between 1018 and 1029, and the composition changes from day to day, with a tendency to become more acid when exposed to the air. The utmost care must be exercised in its preparation, and it keeps poorly after the bottle is opened.

Koumiss is a refreshing beverage, diaphoretic and diuretic, and is said to increase the cardiac and vascular tone, and to improve the general nutrition. The "koumiss cure" has been employed with benefit in the treatment of consumption, chronic catarrhal affections, and other wasting diseases, and is contra-indicated in plethora, renal and vascular

diseases. From fifteen to twenty glasses, with light nourishing food, are taken daily in small quantities but at frequent intervals; it is generally taken warm, in gradually increased doses. Some marvelous cures have been reported from the native article consumed in its native place, but here, as in many other cases, the influence of climate, habits, and better hygienic environments, doubtless also play an important rôle.

III. DIETETIC AND THERAPEUTIC USES OF MILK.

Digestibility of Milk. Milk is not quite as readily digested as meat. Gerber found that 92% of the milk ingested by the mouth was absorbed, whilst, according to Rubner,¹⁰ from 89.8% to 92.3% is utilized. Uffelmann's experiments in his own person showed that from 90% to 91.7% of the milk taken is digested, and the different constituents in the following proportion:

Albumen to the extent of	98.7—99.2%
Fat to the extent of	93.4—95.6%
Sugar to the extent of	100.0
Salts to the extent of	44.2—56.6%

Cow's milk contains all the necessary elements for maintaining life, viz., C, O, N, and H. The human body requires for daily consumption 18.3 grms. N and 328.9 grms C. To obtain the requisite N from milk 2,905 grms. must be ingested, and to obtain the requisite C, 4,652 grms. must be drunk. This excess of nitrogenous matter in proportion to the carbohydrates is likely to interfere with digestion, and while milk in proper proportions answers very well as an exclusive diet for infants, and especially during the first year of life, it is by no means suitable as such for healthy adults—it appears to disagree with many persons, causing constipation and biliary and dyspeptic disturbances—and this fact should not be lost sight of in the treatment of disease, even though it is true that, in the majority of cases of weak stomach and fevers, an almost exclusive milk diet proves highly beneficial. The dietetic value of milk is especially marked in the so-called wasting diseases, such as phthisis, chronic febrile affections, hysteria, etc., simply because the excessive expenditure of nitrogen in the system in such cases is promptly replaced in a most assimilable form by the relative excess in the milk. In many instances of persons suffering from an excess of acidity in the stomach an exclusive milk diet will disagree, on account of the rapid coagulation of the casein, decomposition of the alkaline salts, and liberation of phosphoric acid, all tending to produce a gastro-enteric catarrh, during which undigested coagula are often passed in the stools." In such cases milk may be well borne if given in smaller quantities frequently repeated, or when taken in the form of cocoa, chocolate, or ice cream. The formation of large coagula in the stomach may be prevented by the addition of plain boiled water, soda water, lime water, rice or barley water.

Jacobi¹¹ and Rudisch recommend the following combination: Mix one pint of water, 5ss acid hydroch. dil. with one quart of milk; boil for fifteen minutes; stir well. This preparation is easily retained by weak stomachs in cases of anæmia, gastric ulcer, and other chronic digestive derangements; the addition of pepsin and a little table salt often improves its digestibility.

Milk is an invaluable article of diet in cases of cancer of the stomach. Whilst Oppolzer recommends sour milk in such cases, as being less liable to form hard curds, Thompson very properly prefers to peptonize the milk, by adding a sufficient amount of pepsin and allowing it to stand in a bottle placed in hot water. During the resulting fermentation, the casein and albuminous bodies are more or less converted into peptone, and further transformation can be arrested by either boiling the milk or putting it upon ice until ready for use.

The so-called "milk cure" has been practiced by numerous physicians in obstinate cases of hysteria, hepatic disorders, dropsy, various anomalies of nutrition, phthisis, etc., and Dr. S. Weir Mitchell¹² has been especially successful in the treatment of neurasthenia and hysteria, the results of which are so pleasantly presented in his essays on "Fat and Blood," in which he acknowledges indebtedness to Dr. Karell, of St. Petersburg, for our knowledge of the value of milk as an exclusive diet, and which he regards as invaluable in the treatment of those cases, especially when combined with rest, massage, and electricity. Dr. Mitchell employs well-skimmed milk, as fresh as possible, and, for the treatment of dyspepsia or albuminuria, the milk must be creamless, given in doses at first not to exceed four ounces, at least every two hours, increasing the quantity and lengthening the intervals, but not beyond three hours, during the day time only, the last dose to be taken about bedtime. If the patient be wakeful, a glass should be left within his reach, and in any event the milk should be resumed early in the morning. If the taste of the milk is disagreeable to patients, a little tea, coffee, caramel, or salt is added to flavor it; if its use give rise to acidity, the corrective measures already referred to are resorted to.

Dr. Mitchell points out that at first we can scarcely give enough of skimmed milk to sustain the functions, and for several days the patient is apt to lose weight; but this soon ceases, and in the end there is usually a gain. While in most of the "rest cases" an exclusive milk diet may be dispensed with after a week, still there are cases where, when taken alone for weeks or months, there is frequently a large increase in bodily weight.

During the first weeks of an exclusive milk diet, there is usually marked sleepiness, a white furred tongue, constipation, and yellowish stools of a peculiar odor—the latter conditions should of course be relieved—the water of the urine is increased, which is especially desirable in dropsical and lithæmic subjects; uric acid usually disappears entirely under the influence of skimmed milk. As the case progresses, Dr. Mitchell finds it useful to add thin slices of white bread, arrow-root, rice, or some one of the various "infant foods," and after a few weeks, raw meat or one or two cutlets are added.

In women who are excessively fat and may or may not be hysterical, but are feeble, anæmic, and otherwise wretched, he places them on skimmed milk alone, or gives skimmed milk with the usual food, and in a week or two puts aside all other diet save milk and all other fluids. If the milk sustains the bodily weight the quantity is diminished until the patient loses one half pound each day, more or less. In the meantime, rest in bed, massage, and later Swedish movements are employed, and the vital powers strictly observed. If there are signs of feebleness, the diet is increased by the addition of beef, chicken, or oyster broths, and when the weight of the body has been sufficiently lowered, beef,

mutton, oysters, etc., are allowed, and finally a full diet, but with only a moderate amount of hydrocarbons, the milk remaining a large part of the food. In anæmic subjects, he adds to the treatment lactate of iron in full doses.

In a very large class of feeble, thin-blooded, neurasthenic or hysterical women, if there be only congestive or morbid states of the womb or ovaries, which he believes are best treated by a general gain in health, he begins with three or four ounces of milk every two hours, and increases the quantity gradually until, at the end of a few days, at intervals of three hours, two quarts are taken. A cup of coffee, or mild doses of watery extract of aloes, with two grains of dried ox-gall, usually overcome the constipation, and this simple milk diet enables him to lay aside the use of chloral, bromides, and morphia, to which so many of these cases have become victims. In the meantime, the mechanical treatment is pursued, and after four to six days the patient is permitted to take also a light breakfast, followed in a day or two by a mutton-chop for dinner, and again in a day or two he adds bread and butter thrice a day, and within ten days is usually able to allow three full meals daily, with three or four pints of milk given at or after meals in place of water. After ten days he orders also two to four ounces of fluid malt extract before each meal. As to the meals, the patient's tastes, if not unreasonable, are consulted; he likes to give butter largely, and finds no trouble from it, and considers a cup of cocoa or of coffee with milk on waking in the morning a good preparation for the fatigue of the toilet. (In view of the importance of the subject, we trust Professor Mitchell will pardon our extended reference to his work, which contains such valuable information that no physician should be without it.)

Dr. Donkin extended Karell's system of milk diet to the treatment of diabetes, in which he orders four ounces of skimmed milk every two hours, gradually increased to half a pint every two or three hours. With the general precautions already given, the patients should be able to accustom themselves to this diet, which is of special value at the very onset of the disease, but is unfortunately too often only resorted to as a last resort. Pepper has substituted koumiss for the skimmed milk.

While discussing the diatetic and therapeutic uses of milk, it is proper to mention that it has been successfully employed in man, as an *intra-venous injection* in postpartum and traumatic hemorrhage, and in cholera collapse, but offers no advantages and is perhaps more dangerous than the transfusion of a saline solution.

Milk has been given hypodermically in spinal caries with enfeebled digestion in doses of 4 grms; and, according to Whittacker, one patient was kept alive by this method for sixty-eight days. The milk is all absorbed in twenty-four hours, and only in exceptional cases have abscesses formed at the seat of injection. It has also been injected into the peritoneal cavity, and is, of course, frequently used, either alone or with beef-juice peptonoids and stimulants in the form of nutritive enemata. The injection of *pure milk* into the rectum is of doubtful efficacy, as the rectal mucosa are unable to digest it, and may even cause harm by putrefactive changes; it should, therefore, be previously peptonized. In any event, the rectum should be first washed out, and one or more ounces should be injected through a catheter, introduced as high as the sigmoid flexure, while the patient is upon his hands and

knees. This will insure a more ready absorption by the superior hemorrhoidal or sigmoid vessels, and as these vessels empty quite directly into the portal vein, also a more speedy assimilation.

In cases of gastric ulcer, cancer of the stomach, obstruction of the digestive tube, or uncontrollable vomiting, patients have been kept alive for weeks and months by such enemata, to which a little laudanum may be added, whilst the pressure of a folded towel against the perineum also aids in their retention.

We are, of course, all familiar with the nutritive value of eggnog and milk-punches, as well as the various preparations of milk in broths, gruels, custards, etc., without which our reconstructive efforts in cases of acute and chronic exhaustion would be seriously baffled. A brief description of the principal preparations is therefore given:

1. *Eggnog* is made by adding the beaten yolk of egg and sufficient wine, whisky, or brandy to a glassful of milk, stirring well by means of an egg-beater, and adding sugar and the white of the egg separately beaten, and flavoring with nutmeg, cinnamon, lemon, or vanilla.

2. *Milk-punch* is made by the addition of brandy, whisky, or rum to milk, in the proportion of one to four or six parts of milk, or as may be directed by the attending physician, and flavoring with sugar, nutmeg, etc.

The addition of half an ounce of lime-water to either of these preparations improves their digestibility without impairing their taste.

3. *Arrow-Root Milk*.¹³ Put into a pan 4 ozs. of arrow-root, 3 ozs. of sugar, the peel of half a lemon, $\frac{1}{4}$ teaspoonful of salt, $2\frac{1}{2}$ pints of milk; set it on the fire, stir round gently, boil for ten minutes, and serve warm or cooled. If no lemons are at hand, some other flavoring extracts will do.

4. *Thick Arrow-Root Panada*.¹³ Put in a pan 5 ozs. of arrow-root, $2\frac{1}{2}$ ozs. of white sugar, the peel of half a lemon, $\frac{1}{4}$ teaspoonful of salt, 4 pints of milk; mix all well, set on the fire, boil for ten minutes under constant stirring, and serve.

5. *Cornstarch Blanc-Mange*.¹³ Beat 6 tablespoonfuls of cornstarch thoroughly with 3 eggs; add to it 1 quart of milk nearly boiling and previously salted a little; allow it to boil a few minutes, stirring briskly. Flavor with lemon or vanilla, and pour into a mold to stiffen. It may be sweetened before cooking or after with a sauce.

6. *Boiled Custard* (Cornstarch).¹³ Heat 1 quart of milk nearly to boiling; add 2 tablespoonfuls of cornstarch previously mixed with a little milk, 3 eggs well beaten, with 4 tablespoonfuls of powdered sugar, $\frac{1}{2}$ teaspoonful of salt, and a small piece of butter. Flavor with lemon or vanilla. Let it boil up once or twice, stirring briskly, and it is done. To be eaten cold.

7. *Farina Pudding*.¹³ Boil 3 pints of milk, into which, while boiling, sprinkle slowly $\frac{1}{4}$ lb. of farina. Continue the boiling three quarters of an hour. Turn it into a jelly-mold, and place it on ice or in cold water to stiffen. It may be eaten with pulverized sugar. The boiling should be conducted in a double boiler or in a saucepan placed in a pan of water to avoid burning.

8. *Sweet Rice*.¹³ Add to $\frac{1}{2}$ lb. of rice, plain boiled, 1 oz. of butter, 2 tablespoonfuls of sugar, a little cinnamon, $\frac{1}{4}$ pint of milk; stir it with a fork, and serve. A little currant jelly or jam may be added to the rice.

9. *Rice Pudding*.¹³ Put $\frac{1}{2}$ lb. of washed rice in a stewpan, 3 pints of milk, 1 pint of water, 3 ozs. of sugar, 1 lemon peel, 1 oz. of fresh butter; boil gently one half hour, or until the rice is tender; add 4 eggs well beaten; mix well; bake quickly for one half hour, and serve.

10. *Bread Pudding*.¹³ Boil 1 pint of milk with a piece of cinnamon and lemon-peel; pour it on 2 ozs. of bread crumbs, then add 2 eggs and a little sugar; steam it in a buttered mold or pan for one hour.

11. *Custard Pudding*.¹³ Boil 1 pint of milk with a small piece of lemon-peel and half a bay-leaf, for three minutes; then pour these on to 3 eggs; mix it with 1 oz. of sugar well together, and pour it into a buttered mold or pan; set this in a stewpan with some water; steam it for twenty-five minutes; turn it out on a plate, and serve.

12. *Sago Pudding*.¹³ Put into a pan 4 ozs. of sago, 2 ozs. of sugar, $\frac{1}{2}$ lemon-peel, or a little cinnamon, a small nut of fresh butter, and $\frac{1}{2}$ pint of milk; boil for a few minutes, or until rather thick, stirring all the while. Beat up 2 eggs, and mix quickly with the same. It is then ready for either baking or steaming.

13. *Tapioca Pudding*.¹³ Put into a pan 2 ozs. of tapioca, $1\frac{1}{2}$ pints of milk, 1 oz. of white sugar, and a little salt; set it on the fire; boil gently for fifteen minutes, or until the tapioca is tender, stirring now and then to prevent sticking and burning; then add 2 eggs well beaten; steam or bake, and serve. It will take about twenty minutes steaming, or one quarter hour baking slightly. Flavor with either lemon, cinnamon, or any other essence.

14. *Milk Jelly*.¹⁴ Cut up one cow-heel into small pieces, place them into an earthen jar or a saucepan, with 1 quart of milk and a 2-inch stick of cinnamon; cover the vessel

tightly with lid and paper, and stew in a slow oven for at least three hours; strain into a basin, and sweeten and flavor according to taste; pour into molds or set it aside till the jelly is set. Serve hot or cold.

15. *Milk Jelly with Iceland Moss*.¹⁴ Soak 1 oz. of Iceland moss previously washed, all night; take it out and squeeze it dry, and boil it with 1 quart of milk for two hours, with frequent stirring; strain into a basin, sweeten and flavor according to taste.

16. *Milk Soup*.¹⁴ Take 4 large potatoes, cut in quarters, also 2 leeks (or onion) tops cut up, and place into 2 quarts of boiling water; add 2 ozs. of butter, $\frac{1}{4}$ oz. of salt, and pepper to taste, and boil to a mush; strain off the soup through the colander, and rub the vegetables through it with a wooden spoon; return the pulp and soup to the saucepan, add 1 pint of milk, and boil; upon boiling sprinkle in, by degrees, 3 tablespoonfuls of crushed tapioca; boil gently for fifteen minutes, stirring it well; remove, and serve.

17. *Peptonized Milk Gruel*. Take $\frac{1}{2}$ pint of thick, well-boiled oatmeal-gruel, and while still boiling pour into a stoneware jug with a lid (previously warmed), add $\frac{1}{2}$ pint of new milk (made luke-warm by setting it in a pan of boiling water), and also add $1\frac{1}{2}$ teaspoonfuls of liquor pancreaticus. Stir all well together, and then put the jug under a tea-cosy for one hour, and place into a small enamelled saucepan well heated with boiling water; and after the gruel has been brought quickly to the boiling-point, boil it for two minutes, stirring all the time. Strain through a fine hair-sieve, put it in a covered jug, and set it in a cool place until required. When wanted for use, place a covered breakfast-cupful in a pan of boiling water for ten or fifteen minutes. This gruel should be made every day. In place of oatmeal, arrow-root, infant's food, corn flour, rice flour, or any other farinaceous substance may be used. (Thompson.¹⁵)

In addition to the preparations already mentioned, the invalid may be tempted to consume liberal quantities of milk in cocoa, chocolate, ice creams, milk-toasts, milk biscuits and rolls, oyster-stews, etc.

IV. IMPURE MILK IN RELATION TO INFANTILE MORTALITY AND OTHER INFECTIOUS DISEASES.

According to Oesterlein's statistics, it is safe to assert that the average death-rate during the first year of life is 188 out of 1,000 infants born. In England the average is 141.8; in France, 223.2; in Italy, 273.3. (Farr.) These are mean rates for rural and urban districts. In towns and cities the mortality is always higher, amounting to 33.6%, as compared with a rural mortality of 27.8%. In some of the large cities the infantile mortality is simply frightful, having reached as high as:

480	per 1,000	at Chemnitz.
360	"	" St. Olave.
320	"	" Glauchau.
290	"	" Paris.
277	"	" New York.
276	"	" Brooklyn.
268	"	" Baltimore.
261	"	" Boston.
256	"	" Washington.
250	"	" Liverpool.
230	"	" Philadelphia.

The still-births are excluded in the American statistics. From these figures it appears that, in many cities, out of every 100 children born alive, over one fourth perish before the completion of the first year, but fortunately for the perpetuation of the human race, the average infant mortality all over the world is only about one sixth of those born.

Of the twelve months during the first year of life, the first month furnishes the highest mortality, followed by the second, third, and fourth months, next by the twelfth month; this jump from the fourth to the

twelfth month is quite suggestive, as it is the usual period of weaning, with its attending danger from digestive diseases incident to artificial feeding; next to the twelfth month comes the fifth, sixth, seventh, eighth, ninth, tenth, and eleventh months. During the second and subsequent years the mortality gradually decreases, and of children between the age of 1 and 5 years there die annually 37 out of 1,000. A loss of 188 during the first year, with 148 during the next four years, makes a total loss of 336 out of every 1,000 children born.

The mortality is greatly influenced by climate and seasons, as shown by a higher rate in the polar and equatorial regions with extremes of heat and cold. Generally speaking, the mortality is higher during the cold months than during the moderate months, on account of the greater prevalence of diseases of the respiratory organs; but the hot months like June, July, and August are the most dangerous, at least in this country and Europe, on account of the disastrous attacks of gastro-enteric diseases. The fatal influence of heat and cold upon infantile mortality is well illustrated by the tables published in Dr. Busey's essay on the "Mortality of Young Children," and while they apply to the City of Baltimore, because the essay was written at the request of the trustees of the Thomas Wilson Sanitarium for Children of that city, they are no less true of other large manufacturing cities.

It would lead me too far to consider the various meteorologic conditions which influence the mortality rates as shown in these tables; but we should at least bear in mind, that sudden changes in temperature are especially liable to offend the peripheral nerves and thus cause an irritation, which is transmitted by reflex action to other parts of the body, where it may induce congestions, especially in the respiratory and digestive tracts. During the heated term the blood, too, owing to an excessive function of the skin, is deprived of some of its constituents; it is taken away too much and too long from the internal organs; the proper distribution of the blood-supply is interfered with; in consequence, the tone of the stomach, heart, brain, and other tissues is lowered, appetite and digestion suffer, the red corpuscles are decreased, and not only infants, but also adults, experience languor and general debility; but apart from this, and more intimately connected with the subject, remains the fact that heat not only tends to diminish the power of resistance of every cell to disease, but also favors the development of germ life in the milk.

^ This excessive infantile mortality has always been considered the opprobrium of the healing art. Dickson asked in vain: "How shall we prevent the early extinction of half the new-born children of men?" West truthfully asserts: "At least a third of all your patients will be children, and so serious are their diseases that one child in five dies within a year after birth, and one in three before the completion of the fifth year;" and Swayne pathetically exclaims: "May it fall to the lot of some reader ere long to solve this startling problem."

While powerless to solve the mysteries connected with this subject, many of which are doubtless connected with the mortality laws in general, an attempt will be made to answer the practical question, Can they be reduced? I cannot enter into details of infant hygiene, but must at least point out the fact that the mortality can be greatly reduced by improving the original stock, *i. e.*, the physique and habits of the parents, and placing them, as well as their offspring, under more suit-

able environments, especially with reference to fresh air, sunlight, exercise, suitable clothing and habitations, and last, but not least, proper food. The influence of favorable hygienic conditions is demonstrated by Casper's statistics published in 1825, showing that the mortality rate among royal children was only 57 per 1,000, as compared with 345 per 1,000 among the infants of the poor. Clay calculates that of every 100 children born in England, 90 will be alive of those born in aristocratic families, 79 in the mercantile class, and 68 among the laboring classes. The difference in the mortality of legitimate and illegitimate children is very great, and varies, according to Ufielmann, as follows:

	Legitimate Children.	Illegitimate Children.
In France, mortality of.....	15.0%	30.0%
In Austria, mortality of.....	22.9	35.1
In Sweden, mortality of.....	13.0	24.8
In England, mortality of.....	14.0	35.0

But the most frightful mortality rates are everywhere furnished by the hand- or bottle-fed children, amounting in Berlin 40% to 47%, in Hamburg 29.4%, and in Paris, according to Monat, it has reached as high as 70% to 75%. Professor Kehrer informs us that of 8,329 infants six months of age and under, that died in Munich between 1868-1870, 1,231, or nearly 15%, had been suckled from the breast, and 7,098, or over 85%, had been hand- or bottle-fed.

If we stop to inquire into the immediate cause of the excessive infantile mortality during the first twelve months, we find that about 40% perish from diseases of the digestive system, about 21% die from affections of the respiratory organs; next in frequency are the infectious diseases like diphtheria, scarlet fever, measles, whooping-cough, mumps, scrofulosis, and tubercular affections, rickets, etc. The extreme incident of a mortality of 40% from gastro-enteric disorders and the mortality of 2.5 per 1,000 from primary tubercular diseases of the abdominal lymphatics, cannot fail to force themselves on our attention, and certainly point with more than mere suspicion to the fact that the morbid agent in these cases is introduced into the body with the food.

Notwithstanding these startling arguments against artificial feeding, the facts are that there will always be a large percentage of infants deprived of their natural food, and the question therefore confronts us, What is the best possible substitute for human milk, the requirements of which are:

1. That it must offer the same character and amount of nutritive elements, and in the same proportion, as human milk.

2. The nutritive elements must be present in the same assimilable form, of the same consistency, and should be introduced into the stomach at a temperature not less than 98° Fahr. by means of suction and at proper intervals.

3. This substitute must not contain any morbid or infective agent, whether originally present or introduced during the preparation or keeping of the same.

A moment's reflection upon the physiology of infantile digestion will at once suggest the propriety of rejecting all farinaceous foods before the expiration of the tenth month, except in very limited quantities and

previously converted into maltose by boiling, as in barley water; but as milk is the natural food of all mammalia, few will be disposed to doubt that some modification of cow's milk offers the best possible substitute.

Comparison of Cow's Milk and Human Milk.

Average Composition of—	Albuminoids.	Fat.	Sugar.	Salts.
Cow's milk.....	3.76	3.75	4.42	0.68
Human milk.....	2.00	4.13	7.00	0.20

Human milk contains, therefore, less albuminoids and salts and more sugars and fats; there is also a decided difference in the quality of the casein of the two secretions. The addition of dilute acid to cow's milk precipitates the casein in hard coagula or lumps, while in human milk it separates into a fine powder, giving the appearance of light flocculent curds, which readily dissolve in an excess of acid. Since the coagulum in the same quantity of human milk is but one fifth as large as that of cow's milk, this difference, which is solely one of compactness and solubility, cannot fail to influence the digestibility of the two secretions, and explains at once why even moderate quantities of undiluted cow's milk are liable to overtax the digestive apparatus of the infant. (Leeds, Starr, etc.) In addition to this, and perhaps greater in importance, is the fact that human milk from a healthy subject rarely contains any micro-organisms, while cow's milk is never free from bacteria and may, moreover, be the vehicle of infectious germs and other morbid agents. Apart from the fact that unscrupulous dealers not infrequently lower the nutritive value by skimming or watering the milk, Dr. Busey and myself in a joint contribution have elsewhere pointed out how the quality of the milk may be impaired by improper food and care of the animals, and how the milk may produce mischief if derived from animals while being treated with strong remedial agents, or as the product of diseased animals, especially those suffering from inflammatory lesions of the udder, tuberculosis, and other communicable diseases. We have collected 138 epidemics of typhoid fever, 74 of scarlet fever, and 28 of diphtheria, which have been caused by infected milk, and indicated the various ways by which it is possible for disease germs to be carried in this way. Permit me to direct your attention to a very common milk fault, which may be considered a source of constant danger in infant-feeding and perhaps the most important factor in swelling the mortality rates of our helpless babes.

Every consumer of milk has doubtless observed the presence of more or less foreign matter found at the bottom of the vessel or bottle in which it is kept—indeed, it is a matter of such common occurrence that it hardly excites our attention. Professor Soxhlet was perhaps the first to point out that these deposits are largely made up of excrementitious matter from the cow, which, adhering to the udder of the animal, gained access to the bucket in the act of milking. Professor Renk, of Halle, brought this subject to the attention of the Section of Hygiene at the International Medical Congress in 1890, and few of his audience are likely to forget the valuable object-lesson presented by him, consisting of filtrates of milk samples from different German cities, each representing the amount of filth contained in a liter of milk, and furnished at once a

positive index of the degree of cleanliness observed at the various milk farms. The average weight, *dried* at a temperature of 212° Fahr., of these sediments was 3.8 mgrs. at Leipzig, 9.0 mgrs. at Munich, 10.3 mgrs. at Berlin, and 12.2 mgrs. at Halle. These filtrates were so disgusting in appearance that we were not disposed to accept them as a standard for American milk, and with the courteous consent of the Health Officer, Dr. Woodward, Professor Hird prepared filtrates from twenty-four specimens of Washington milk, taken at random, with the result that they presented even a greater amount of impurities, weighing all the way from 5 to 30 mgrs. per pint or quart; and as fecal matter contains about 85% of moisture, the weight of undried filth in the maximum specimen would have been about 180 mgrs. per quart.

Now, it is not at all likely that the average American housewife would permit any one to throw this amount of filth into her milk-pitcher, and yet, practically, we suffer it to be done, and there is no law to prevent it. If these sediments are subjected to microscopic examination, we will find that they are composed of epithelial *débris*, hairs of the cow, excrementitious matter, vegetable cells and fibers, organic and inorganic dust particles, bacteria, fungi, and spores of every description; fully 90% of the bacteria found in such specimens are fecal bacilli, all of which is not only disgusting, but also extremely suggestive of danger. We know that the number of micro-organisms in such milk is largely increased, and bacterial development and consequent decomposition are materially hastened, in such a medium. Dr. Plaut, of Leipzig, found, as a rule, that in warm weather the so-called fresh milk delivered in the morning has already passed the period of incubation and is unfit for use by young children, on account of the germ development, and of 47 infants whose milk-supply was carefully investigated by him, 18 developed digestive disorders and 6 died.

The greatest danger from milk of this class is the possible presence of tyrotoxicon and other bacterial products. Professor Vaughan believes that the former poison is developed by the growth of a germ, which, under favorable conditions, multiplies very rapidly. The presence of the very filth referred to, a summer heat, and the pernicious habit of placing the milk before cooling in covered cans or bottles, perhaps dirty besides, constitute favorable environments for the production of bacterial toxins. The relation of this poison and of milk bacteria to cholera infantum and the summer diarrhœas in bottle-fed children, is gaining ground and will doubtless result in a great reform of our milk establishments.

Cow's milk, no matter how great the care exercised in milking, contains the germs which bring about fermentation and decomposition. These bacteria of different species abound in the atmosphere whenever the temperature is above 60° Fahr., cling to the udder and teats, and even invade the lacteal ducts, and, finding there an excellent culture tube, multiply with great rapidity. Dr. Schultz has shown that the first half gill or so of milk obtained from the cow may contain 1,360,000 germs per cubic inch, while the milk drawn later is free from bacteria; hence we may safely conclude that the bulk of these organisms get into the milk from external sources, such as the air and dust of the stable, the hands and clothing of the milker, the hair or udder of the cow, the hay and straw, and last, but not least, the water in which the milk vessels are washed, and with which the milk is not infrequently diluted.

Sedgwick and Batchelder have shown that, with special precautions on the part of the milkman, the number of bacteria in fresh milk may not exceed 500 to 1,000 per c.c., but when he uses the ordinary flaring milk-pail, with more or less rough disturbance of the bedding and shaking of the udder, as many as 30,500 have been counted in 1 c.c. When we recall the fact that these germs during the heated term multiply with alarming rapidity, so that the average sample of Boston milk contains as many as 2,300,000 bacteria per teaspoonful, many of which are capable of evolving poisons, we can readily appreciate how the ingestion of such milk may give rise to the so-called summer diarrhœas of infants and swell their mortality.

It has been proved, bacteriologically, that milk is not only a favorable culture medium for many saprophytic germs, but also for the germs of typhoid fever, erysipelas, tuberculosis, glanders, diphtheria, pneumonia streptococci, and other pyogenic organisms, and this fact alone points at once to the necessity of a rigid control of our milk-supply.

A review of the evidence on milk contamination, both in this country and in Europe, shows that the laws which have been enacted to protect the public deal largely with the prevention of milk sophistication, and even in this respect have fallen short of their aim. Indeed, it is doubtful whether legislation in matters of this kind is as effective as public education. The importance of a pure milk-supply was recognized as early as 1878 in connection with some of the milk-cure institutes in Germany. The system then originated has been improved by time and experience, and lately introduced into Boston, New York, and Philadelphia, and appears to offer, by trade competition, the best solution of an important problem. Those of you who are familiar with the surroundings of our milk farms and the habits of the average dairy employés need no arguments for the necessity of sanitary reform. No family ever thinks of employing or keeping a cook afflicted with a communicable disease, and yet not the slightest restriction is placed, or question asked, about the persons who handle our milk-supply, which is notoriously one of the most sensitive and susceptible articles of food to contaminating influences. The absolute necessity of such milk laboratories is based upon the following facts:

1. It has been demonstrated that milk may be morbid by reason of an abnormal number of ordinary milk-bacteria and the presence of saprophytic germs capable of producing toxins, such as tyrotoxin, resulting in cholera infantum and other gastro-enteric diseases.

2. Milk may be rendered unfit for use by reason of improper food and care of the animal, or while the animal is being treated with arsenic, copper, iodine, lead, mercury, tartar emetic, aloes, atropia, colchicum, croton oil, senna, strychnine, salicylic acid, turpentine, veratrum viridis, and other remedial agents.

3. Milk itself may be morbid as the product of a diseased animal. Dr. Busey and myself have elsewhere pointed out that inflammatory conditions of the udder and teats, especially the condition known as garget, are doubtless responsible for a large number of cases of pseudo-membranous diphtheria and other septic infections. The milk of animals suffering from acute specific enteritis, puerperal and other septic fevers, foot and mouth disease, cowpox, anthrax, pleuro-pneumonia, rabies, and tetanus has also been known to prove injurious to the consumer.

4. It has been proved by Ernst, of Harvard, that three out of twenty-five samples of Boston milk transmitted the germs of tuberculosis in the animals experimented upon, and Dr. Fries found that the ordinary market milk of Copenhagen proved infectious in six out of twenty-eight rabbits, showing a corresponding degree of danger to delicate infants, and of which Dr. Buscy and myself have collected a large amount of clinical evidence.

5. Milk may acquire infective properties after it leaves the udder of the animal, in support of which Dr. Buscy and the writer have tabulated 138 epidemics of typhoid fever, 74 of scarlet fever, and 28 of diphtheria, the analysis of which showed that the poison may reach the milk by soakage of the germs into the well water with which the utensils are washed, or by the intentional dilution with infected water; that the infection can be conveyed by animals wading in sewage-polluted water, or by the dairy employ  s acting as nurses, or suffering themselves from some mild infection while continuing their usual duties, or are convalescents from the disease; that infection has taken place through the agency of scrubbing-brushes, flies and other insects, exposure of the milk in sick-rooms, or washing the patients with the same cloth used in wiping the dairy utensils. Surely this is sufficient evidence, enough to show that something should be done to protect the public; and I believe this can best be accomplished by encouraging the establishment of milk depots, like the Walker-Gordon Laboratory of Boston, and of which Dr. T. M. Rotch, of Boston, and Dr. R. F. Taylor speak so approvingly:

"The farm and herd are under the absolute control of the laboratory and are used for laboratory purposes only; the cows, their food, their stables, their pasture, and their drinking water are subjected to the frequent, paid, critical examination of the best veterinary surgeon that can be procured in Boston. The dairymen dress in white suits before milking, having each previously had a bath. The milk-pails are of glass, and the milk, after being aerated and cooled to about 44   Fahr. in a tank of ice and water, is delivered at the laboratory in Boston within four hours after the milking. The average and almost stable analysis of this original milk shows a percentage of:

Fat	3.90
Milk-sugar	4.30
Proteids	4.00
Salts	0.65
<hr/>	
Total solids	12.85
Total liquids	87.15

"At the laboratory a ventilating engine keeps up a constant change of air, and a hose keeps the enameled brick walls and stone floors wet to prevent contamination of the milk from dust, while it is being modified.

"The whole milk, after being pasteurized, passes through a Stockholm separator, which makes 6,800 revolutions a minute, and yields a cream of an almost constant 16% fat. It not only does this, but it removes all dirt that, from unavoidable causes, has gained access to the milk, thus yielding a clean skimmed milk practically free from fat, only 0.13% remaining.

"The modifier has, as a result, stable component parts of the original milk to work with, made up by analysis as follows:

	Fat.	Sugar.	Proteids.
Cream giving.....	16.00	4.00	3.60
Skimmed milk giving.....	0.13	4.40	4.00

"In addition to this, the modifier has a 20% solution of sugar of milk, freshly prepared with distilled water each day, and is therefore able to put up correctly a prescription which calls for certain percentages of fat, sugar, and the albuminoids. After copying the formula or prescription in a book kept for that purpose, the 'modifier' picks up a basket with as many compartments as meals are ordered, and fills each compartment with a tubular bottle holding the number of ounces ordered for each feeding. After mixing the ingredients *en masse*, as ordered, each bottle is filled and the basket passed to the stoppler, who plugs it with cotton. The whole is then pasteurized for half an hour, and, after proper labeling, the basket is ready for delivery. The delivery-wagon is divided into two compartments: the back, which is lined with zinc and easily cleaned, is for the fresh milk and baskets, and the front for soiled tubes, baskets, etc., which are sterilized at the laboratory before being taken into the modifying room." (R. F. Taylor.)

For a long time it was assumed that the composition of human milk varied with the age of the child, but Professor Leeds's long series of analyses show that after the function of lactation is once fairly established, the composition of woman's milk remains practically the same; and while the child receives more nutriment, day by day, it is in consequence of larger doses, rather than of a stronger quality. This is quite in harmony with reason and common sense.

Now if we wish to order a humanized milk as prepared at these laboratories, say for a child one month old, we would order the following mixture:

Cream	f ³ vi	180
Milk-sugar solut. 20%	3vi	180
) Skimmed milk	3ivss	135
Lime water, 1-20	f ³ i	30
Distilled water	f ³ vi	180

This is divided into twelve feedings, 2 ounces each. As the infant grows older, the intervals are lengthened and the doses increased. A child from two to five months old should receive eight feedings of 4 ounces each, and a strong child from five to eight months old may receive from 6 to 7 ounces at each of the eight feedings, according to the indications, which are best studied by the weight chart. Professor Rotch uses lime water for the purpose of partially neutralizing the acidity of the gastric juice, in consequence of which the casein coagulates more slowly and the formation of firm, undigestible curds is thus prevented. Professor Leeds, instead of lime water, strongly recommends the addition of peptogenic milk-powder, which is a preparation of pancreatic lactose and alkaline milk salts, originated by Fairchild Brothers & Foster, of New York.

There is nothing strained in the requirement of an ideal milk-supply,

as good and sufficient reasons have been given, and by means of which we may hope to obtain such a standard of milk as will not only effect a decided reduction in infantile mortality, but will render the dissemination of infectious diseases through the milk-supply a matter of history only. Apart from these advantages the proper way to manufacture condensed milk suitable for infant-feeding is to modify the milk before evaporation, a plan which, as far as I know, has not been attempted and is urgently called for.

In the meantime, it will be well to educate the public in the matter of milk sediments, which can readily be seen at the bottom of the bottle after standing a few hours. If we tell our dairyman the source of this pollution and how it can be prevented, something will be accomplished. No milk-supply is absolutely safe without pasteurization; and for infant-feeding, until we can do better, I advise the following combination recommended by Professor Reeds:

Milk	½ pint	240
Water	½ pint	240
Cream	2 ounces	60

Peptogenic milk-powder, one large measure. This mixture should be placed on a hot range or gas stove, and with constant stirring slowly heated for ten minutes to bring it to the boiling-point; it is then removed and quickly cooled, and should be kept on ice and again pasteurized before feeding. While milk thus prepared can never take the place of breast-milk from a healthy mother, it is very near in all respects to human milk and is perfectly sterile, so far as the ordinary disease germs are concerned.

Prevention of the disease is perhaps the central idea and object of sanitarians, but as hygiene also deals with the art of improving health, the question of a pure milk-supply is important in the feeding not only of infants, but also of the sick and invalids, and I trust, therefore, one of general interest to the profession.

V. THE GERM-THEORY OF DISEASE, AND DAIRY BACTERIOLOGY.

Since I have said a good deal about disease germs and the influence which milk plays in their proliferation and dissemination, it seems desirable, for the benefit of the lay reader, that a brief résumé of our knowledge of the causes of infectious diseases¹⁶ should be given, with the hope that it may not only explain many obscure points, but also furnish a clearer conception of the various forms of micro-organisms which are of special interest to every one engaged in the dairy business.

Not many years ago, it was assumed that the infectious diseases were caused by a miasm. A miasm, in the minds of those physicians, constituted some hypothetical matter formed outside of the system, which contaminated the air and gained admission in respiration, and then produced pathological conditions. Moscati tried over a hundred years ago to demonstrate the character of malaria to the senses by condensing the moisture of the air over rice fields and marshy districts; and though certain organisms were found, all efforts proved useless to con-

nect them with the disease as a causative factor, and thus the real nature of a miasm remained unexplained.

Another class of physicians assumed that many of the infectious diseases were caused by a contagium, by which they understood a specific morbid material generated within the body of persons affected with a certain disease, and capable of producing the same disease in others. This contagium was presumed to be communicable by immediate or mediate contact; but they failed to isolate the various specific agents or to demonstrate them to our senses.

About fifty years ago, Donne first demonstrated the presence of vibriones in syphilitic pus. In 1840, Henle¹⁷ ventured the opinion that the morbid matter of all infectious corpses was of a living organized character; and in order to determine whether the cadaver poison was produced by micro-organisms, he strongly urged to search for such organisms in the bodies of those affected with infectious diseases, and, if possible, to isolate them and establish their respective characters. This awakened a most earnest desire to determine whether or not organisms could be found in the bodies or excretions of infectious patients which might be the carriers or agents of the respective virus.

Very soon after this announcement, Davaine¹⁸ discovered the *cause of anthrax*; he found in the blood of animals suffering from splenic fever, certain rod-shaped organisms, which, in 1855, were confirmed by Pollender¹⁹ and Brauell.²⁰ These observers also demonstrated the fact that the blood of such animals inoculated into other animals produced the disease in question, and the blood of animals thus inoculated likewise contained the peculiar rod-shaped organisms. Pasteur,²¹ in 1877, finally proved that inoculation of blood, which had been freed from these organisms, failed to produce anthrax. This led to the natural conclusion that there was a causative relation between these rod-shaped organisms and the disease in question.

In the beginning of the seventies, Waldeyer, v. Recklinghausen, Weigert, and others, discovered a number of microparasites in the internal organs and wound secretions of various surgical infectious diseases; and in 1876 Koch²² published his researches on the etiology of splenic fever and anthrax, and presented the life-history of the *Bacillus anthracis*, which is one of the many varieties of bacteria.

The simple methods employed by this author in the detection and cultivation of disease germs resulted in the discovery of many other pathogenic bacteria, viz.: the tubercle bacillus of Koch; the bacillus of glanders, by Schütz and Loeffler; the lepra bacillus, by Hansen and Neisser; the coma-bacillus of cholera, by Koch; the micrococcus erysipclatis as the cause of traumatic erysipelas, by Fehleissen; the tetanus bacillus, by Nicolaier; the staphylococcus pyogenes-aureus, albus, and citreus, the cause of suppuration, by Ogston and Passet; the lancet-shaped pneumonia bacillus as the cause of pneumonia; the bacillus of typhoid as the cause of typhoid fever; Loeffler's bacillus as the cause of diphtheria, and the plasmodium malarie as the cause of malarial fevers. The evidence as to the cause of puerperal or childbed fever is conflicting, but points to the fact that it is due to a streptococcus infection, and it is believed that this microbe, as well as the staphylococcus, may give rise to diseases of the throat resembling diphtheria, and may also play an important rôle in the production of scarlet fever, blood-poisoning, abscesses, etc.

We may be disposed to smile with something less than contempt when we read of the importance attached to the microbic origin of certain diseases; but Koch has laid down *certain conditions*, upon the proof of which alone it can be asserted that *a particular microbe is the cause of a certain disease*. They are:

1. The micro-organisms must be found in the blood, lymph, or diseased tissues of man or animals suffering from, or dead with, the disease.

2. The micro-organisms must be isolated from the blood or tissues, and cultivated in suitable media outside the animal body, and these pure cultivations must be carried on through successive generations of the organism.

3. A pure cultivation thus obtained must, when introduced into the body of a healthy animal, produce the disease in question.

4. In the inoculated animal the same micro-organism must again be found.

It has been shown beyond a doubt, that some of the bacteria are the causative factors of communicable diseases, and this is a strong argument in favor of those in which the proofs are not yet conclusive. For obvious reasons the inoculation of pure cultures cannot always be applied to man; but in diseases which are interchangeable between animals and man, the complete sequence of proof has been established, and the successful inoculation of certain disease germs into healthy animals certainly warrants the assumption that similar results will take place in the human system.

What are bacteria? Prudden²³ tells us that they are so small that for a long time scientists were uncertain whether they belonged to the animal or vegetable kingdom; but it is now definitely settled that they are plants, and closely related to the algæ. Under the microscope, we see that the bacteria or shizomycetes are made up of vegetable cells containing slightly granular matter and surrounded by a somewhat denser envelope; they are so pale and translucent that they can only be distinctly recognized by staining them.

The bacteria may be spheroidal, ovoidal, rod-shaped, or spiral-shaped, and have been named according to their form.

All spheroidal bacteria are called *micrococci*, or simply "*cocci*." If they cling together and form chains, they are called *streptococci*; if they are grouped together in a rather irregular manner, like a bunch of grapes, they are called *staphylococci*.

Of the *rod-shaped bacteria*, the most common genus is called *bacillus*. If they are rather slender and delicate, they are called *leptothrix*. If they have the form midway between the round and rod-shaped bacteria, they are spoken of as *cocci-bacilli* or *cocci-bacteria*; the spiral or corkscrew bacilli are called *spirillæ*, and the curved bacilli are spoken of as *coma-bacilli*.

Reproduction. Like all living forms, bacteria are able to reproduce, provided they find a suitable soil; they need warmth, moisture, carbon, nitrogen, and salts, and quite a number oxygen also. The majority cannot exist in highly acid nutrient fluids, but prosper best in neutral and faintly alkaline media. It has also been demonstrated that they vary considerably with regard to their food; some flourish in certain media, where others find it hard to live. The majority of germs develop best at a temperature between 86° and 95° Fahr., but may

grow at a much lower temperature. When these favorable conditions are present, the process of reproduction is so rapid that a single germ, by growth and subdivision, may give rise to over sixteen millions of similar organisms within twenty-four hours; they multiply either by transverse fission or by spore formation. In fission the microbe divides into two parts, each of which lives and divides in its turn; others divide into three parts simultaneously; some forms, however, do not fall apart, but cling together, forming threads or chains of varying lengths, or clumps or masses.

In the spore formation we have to deal with internal spores and joint spores. In the former, the protoplasm is seen to contract into one or more refracting bodies, called spores, the membrane of the bacillus breaks up and liberates them, and they germinate into new bacilli. In joint spores, the entire cell gets detached and becomes transformed into a spore, which is capable of germinating some time afterwards.

The vitality of some bacteria is destroyed at the freezing-point, while others remain alive, even in ice, for long periods. The spores are more resistant to the influence of heat and cold, but exposure to a temperature of 250° Fahr. is quite likely to kill all forms of bacteria and their spores.

Saprophytic and Parasitic Bacteria. When the bacteria derive their food from dead substances, they are called *saprophytes*; if they prey upon some living organism, they are called *parasites*; and if they can only live upon the latter, they are termed *obligate* parasites, and if they can live also upon a dead matter, they are distinguished as *facultative* parasites. Disease germs are classed with parasites, since they multiply in the system. While many of the saprophytic germs may also produce disease, the majority are harmless and subserve many important and useful purposes in nature, as in the process of fermentation, such as lactic fermentation, ripening of cheese, etc.; they also play an important rôle in oxidation, nitrification, and putrefaction, where they destroy dead matter by feeding upon it, and split it up into simpler compounds, which can be more readily absorbed by vegetable or animal cells.

In the *Cultivation of Bacteria*, some interesting observations have been made. It would appear that wherever varying forms of bacteria are growing together a struggle for existence begins. The hardy and rapidly growing bacteria struggle with their weaker neighbors, and the weaker, as usual, succumb.

Thus it has been observed that the bacteria of fermentation and putrefaction furnish a material which poisons neighboring disease-bacteria. But such an antagonism does *not always* exist, for many varieties appear to grow together, while others prepare the way for a succeeding race, and often one species adapts itself to the conditions which brought about the extinction of its predecessors. (Prudden.)

Bacteriological studies have also shown us that, as the bacteria grow, they set free various chemical compounds—the result of their own life processes—chief of which are the ptomaines; they also liberate some of the amido compounds of the aromatic series, and ammonia, taurin, fatty acids, hydrogen sulphide, carbon dioxide, carburetted hydrogen, and other stinking gases not yet determined.

The subject of *ptomaines* is to us of special importance, because it is believed that these alkaloids, closely resembling the vegetable alkaloids

in chemical and physiological properties, produce the real mischief in the human system.

Quite a number of ptomaines have been discovered, and we know to-day that the cadaver poisons, such as *cholin*, *neuridin*, *neurin*, *cadaverin*, *putrescin*, etc., are the products of bacteria. Ptomaines have also been demonstrated in decomposing milk, cheese, meat, and fish.

Attention has been called to the poisonous effects of tyrotoxin in milk, cream, cheese, etc.; and the cases of sausage-meat, mince-pie, and fish poisoning are usually caused by the rapid proliferation of saprophytic germs in these articles of food and the production of similar poisons. A matter of even greater interest to us is the fact that these so-called ptomaines or toxins have also been discovered in the culture fluids of certain disease germs. Thus, *cadaverin*, first demonstrated in the human cadaver, has been found in connection with putrescin in pure cultures of the cholera bacilli. And it is believed that the symptoms of cholera are produced by these poisons; for when introduced into animals, violent inflammation and necrosis of the intestinal mucous membranes result.

Typhotoxin has been obtained from pure cultures of the typhoid bacillus; this alkaloid, when injected into animals, produces inability to control the voluntary muscles, and excites increased flow of the salivary and intestinal secretions.

Another ptomaine, called *tetanin*, has been demonstrated from the cultures of the tetanus bacilli. This alkaloid, when injected into animals, produces clonic and tonic spasms—in fact, the symptoms of tetanus.

The recent researches by Koch as to the discovery and effects of *tuberculin* and Behring's diphtheria antitoxine are too well known to require special notice.

The admirable methods of Brieger, employed in the detection of ptomaines, will doubtless succeed in demonstrating that such products are formed in all pure cultures of pathogenic bacteria, and this would, of course, materially enhance our knowledge as to the deleterious effects of these compounds on the system.

Indeed, it would seem that the time is not far distant when we can say that certain bacteria invade the system. These develop, under favorable conditions, in sufficient number to produce, by their own life-processes, certain ptomaines, which, in turn, cause a train of toxic symptoms not unlike those of the vegetable alkaloids, or substances usually defined as poisons.

The Habitat of Bacteria. From what has been said it will be readily understood that bacteria are widely scattered and are found wherever organic life exists; in fact, they are present in all the media with which we come in contact; *i. e.*, in the air, water, soil, food, the wastes of human life, in the excretions and secretions, on the surface of man, animals, plants, etc. This, however, is not always the case, since many of the disease germs select only certain localities or media. Disease germs have been found in the following abodes:

In the *open air*, so far only the staphylococci of pus have been demonstrated.

In the *air of rooms*, the bacillus of pneumonia, of anthrax, and of tuberculosis, and the micrococci of pus and erysipelas have been isolated.

In the *water-supply*, the bacillus of cholera and of typhoid fever have been demonstrated.

In the *soil*, the bacillus of anthrax, of typhoid fever, of tetanus, and of malignant oedema have been found.

In *articles of food*, the bacilli of anthrax and tuberculosis, and the staphylococci of suppuration have been found in the milk and meat of diseased animals.

In *clothing*, the staphylococci of pus, the bacilli of anthrax and malignant oedema have been demonstrated, and there is reason to assume that the germs of all diseases conveyed in the air can also be carried in clothing.

It has also been shown that the *walls, floors, and ceilings of our habitations* may harbor disease germs. The pneumonia bacillus has been found in the ceiling spaces, the tetanus bacillus in mortar, and the tubercle bacillus on the walls, floors, bedsteads, and in fly-spots.

The *surface of our body* harbors many bacteria, both harmless and pathogenic. They are especially numerous in the armpit, between the toes, and in the dirt of the finger-nails. Mittmann²⁴ demonstrated no less than seventy-two varieties of bacteria in nail-dirt. Of the pathogenic forms, the micrococci of pus and the tubercle bacillus have been demonstrated in nail-dirt.

The pus-producing organisms have also been found *on the surface of the skin*, especially in persons afflicted with abscesses, boils, pustules, and other skin diseases. It is quite likely that the bacilli of cholera and typhoid fever will be found on the skin of persons soiled with dejecta, however slight, and that the scales of the epidermis contain the carriers of scarlet fever, smallpox, measles, erysipelas, etc.

In the *mouth and saliva* there have been found four different bacteria, capable of producing septicæmia in animals; also the streptococci of diphtheria and the bacilli of tuberculosis and pneumonia, not to mention the *Oidium albicans*, which belong to the fungi, as the cause of thrush. (Miller.²⁵)

In the *mucus* of the respiratory passages, the bacilli of pneumonia and tuberculosis have been isolated; also, Fränkel's and Weichselbaum's pneumo-cocci. In *vaginal mucus*, the *Oidium albicans*, the staphylococci of pus, and the streptococci have been found. (Winter.²⁶)

In the *intestinal contents*, the bacilli of cholera and typhoid fever, and it is assumed that the carriers of dysentery and tuberculosis are also present.

The *blood and internal organs* of healthy individuals are free from micro-organisms. In disease, the bacillus of typhoid fever has been found in the blood and spleen; the bacilli of anthrax and tuberculosis have been demonstrated in the blood and various internal organs; the same is true of the streptococci of diphtheria. (Fluegge.²⁷)

Normal *urine* has been found to be quite free from germs, but bacteria have been demonstrated in certain diseases of the bladder and embolism of the kidneys.²⁸

The *cutaneous perspiration* is believed to be free from microbes; if found, they are probably derived from the skin.

The *exhalations* of healthy and diseased persons, even the breath of consumptives, have been found to be free from bacteria. But more remains to be done in this direction, as there are many infectious diseases which are doubtless in their first stage communicated by the exhalations of the patients.

Channels of Infection. Having indicated, briefly, where the disease germs have been found, it will be readily inferred that the air, water, soil, and articles of food are the principal media for their dissemination. Apart from these, clothing, bedding, and personal effects are common means of spreading infectious diseases. Man himself is often the cause of spreading disease germs. This is especially true when he mingles with the public, as in many mild cases of typhoid fever, and other diseases of a mild type, not to mention the spread of scarlet fever, measles, smallpox, etc., by patients, convalescents, and infectious corpses.

Perfectly well people may carry the germs in their clothing, or about their person, and infect some distant locality. One of the severest scarlet fever epidemics I ever encountered was due to a man who came for me on horseback, some sixty-five miles, to see some scarlet fever cases. He slept that night on a pallet made at his sister's house. The next day a little child, 18 months old, played on the bedding, and in less than ten days that child developed scarlet fever, which subsequently invaded almost every family in the town.

Insects, especially flies, are doubtless frequently the cause of spreading disease germs; they are usually present where the existence of germs may be suspected, and feed on the material likely to contain them. As a matter of fact, Celli,²⁹ of Rome, in 1888, demonstrated that the bacilli of tuberculosis, of anthrax, and of typhoid fever as well as the micrococci of pus, retain their virulence and power of propagation after passing through the intestinal tract of flies. Spillmann³⁰ and others have demonstrated that flies which were caught whilst feeding upon the sputum of consumptives, contained invariably vital specific bacilli, and Hoffmann³¹ not only confirmed these observations, but also found them in the fly-spots on the walls of rooms of phthisical patients.

Disease germs, like other seeds, must have a suitable soil for their growth. We have seen that disease germs are widely distributed, and the channels for invasion of the system are also numerous, and the wonder is that more persons do not contract disease. This shows that invasion of the microbe alone, is not sufficient to produce the disease, because this can take place often enough, but that, in addition to the germ, we must also have a suitable soil for the proliferation of the seed, and this we call predisposition.

What constitutes predisposition? Is it a weakness of the organism, a diminished power of resistance, or a peculiarity of the tissues—more especially of the tissue cells—which places them at a disadvantage in their struggle against the invasion and effects of these germs? Is it the addition or subtraction of a certain something in the blood, which furnishes the proper food for their growth? These are difficult questions to answer, but we will sum up the existing views on this subject.

In the first place, it is suggested that this predisposition in many persons amounts to only *simple tears, abrasions, or alterations of the skin and mucous membrane*, which would favor the invasion of the germs. A scratch of a pin or the puncture from a shoe peg may permit of the inoculation of the germs, which give rise to septicæmia or blood-poisoning. It is also held that the peculiar susceptibility of persons suffering from whooping-cough and measles, to tuberculosis, is due to the catarrhal condition and alteration of the epithelial layer of the respiratory tract, which favors the invasion of the tubercle bacilli; for

similar reasons the delicate mucous membranes of anæmic and scrofulous subjects are believed to favor the invasion of these germs. This is highly probable, when we consider that only the delicate mouths of children are susceptible to the effects of the *Oidium albicans*. Loeffler has also shown that the vagina of young guinea-pigs favors the inoculation of his diphtheria bacilli more than that of older animals.

Functional derangements of the stomach appear to play an important rôle in predisposition. Thus we know that normal gastric juice destroys the bacilli of cholera; but if the fluid be only faintly acid, neutral, or alkaline, this protection ceases, and the germs will reach the intestines and proliferate. This is doubtless true of many other germs.

For a time at least it was believed that the leucocytes assumed the rôle of defenders of the body against bacterial invaders—that, according to Metschnikoff,³² they are phagocytes in this, that they either swallow and digest the bacteria, or surround them so closely as to cut off their oxygen and food-supply, and thus kill them. According to this theory, which was based on the fact that many dead bacilli were found in the bodies of leucocytes, an animal whose white blood-cells can successfully battle with and eat up a given species of bacteria, enjoys immunity from its deleterious effects; if, on the other hand, they are not strong enough to resist them, the battle is lost and the way is open for the spread of the infecting germs.

Now, while it cannot be denied that bacteria have actually been found in the bodies of leucocytes, it does not follow that they were taken up alive and destroyed by these cells; and until this is shown, no proof exists that their action toward the bacteria differs in any way from that toward other dead matter which they absorb or transport. This has been well presented by that indefatigable bacteriologist, Dr. Prudden, of New York.

Indeed, recent experiments appear to indicate that, after all, "it is the blood serum which possesses, in different degrees in different animals and in varying potency with the different bacterial species, a most marked germicidal power"; and this same observer has proved that a similar germicidal power resides in fresh, human, non-inflammatory transudations. In his opinion, "this power is not directly associated with the formed elements of the blood or transudates, but is in some way dependent upon their albuminoid constituents, and that this singular and apparently most significant capacity of the body fluids is intimately associated with that complex condition which we call life."

Whatever the exact rôle of the blood may be, the influence of a healthy condition of this fluid cannot be questioned. If healthy blood offers a natural defense, impure blood would constitute a prominent predisposing factor; and the average layman may, after all, not be very wrong when he talks to us about his "blood being out of order."

We know from clinical experience, that bad food, impure air and water, and the absorption of putrid gases formed in the intestinal tract, general mal-nutrition, physical and mental exhaustion, fever, anxiety, etc., predispose to a number of infectious diseases; and it is not unreasonable to assume that these factors, apart from producing an alteration of the blood, also tend to lower the vital powers of the system, and necessarily diminish the power of resistance to bacterial invasion and their products. Wyssokowitsch's experiments have shown that the same bacilli, which under normal conditions of the blood were rapidly

destroyed, at once began to manifest their pathogenic effects under the influence of a ptomaine poison.

In the light of clinical experience, the existence of an individual predisposition to infectious diseases cannot be questioned. We also know that this may be congenital and acquired; and in our present state of knowledge, we may assume that a vulnerability of the tissues and tissue cells exists, which renders the system peculiarly susceptible to the invasion of certain germs, and the particular form of poison evolved during their life-processes.

It is no more difficult to account for inherited vulnerable anatomical elements to certain germs and their toxic products, than to explain the hereditary transmission of physical and mental peculiarities, and the many idiosyncrasies, to drugs, etc.

Immunity. Now, while we find a natural predisposition to certain diseases, we also observe a natural *immunity from certain diseases*. This has been ascribed by some to the fact that the avenues for the invasion of the microbes are so well protected that they cannot enter the system, or that the blood and character of the tissues render it a poor soil for the proliferation of the disease germs; but these are unsatisfactory explanations in many instances. We know there are mild and malignant cases of scarlet fever, walking cases of typhoid, and cases of a profound type, and we also know that some systems are peculiarly susceptible to the physiological effects of certain drugs, and others are not. For all such reasons, the writer is tempted to accept Arlong's explanation, that immunity is due to the inaptitude of certain organisms to feel the effects of ptomaines evolved by the microbes. According to his explanation, germs of infectious diseases may exist within the body, and the disorder they may give rise to may be absent; for infectious disease *does not exist merely* because some noxious micro-organisms have taken their abode in the system. They exist because functional or structural troubles are brought about through the agency of ptomaines. Of course, this explanation does not apply to *all* infectious diseases, for in some instances one attack affords no exemption from a subsequent attack; indeed, the susceptibility is rather increased than diminished. This is true of malaria, gonorrhœa, croupous pneumonia, and erysipelas.

The next question of practical interest is: *How is the disease brought about by the bacteria?* Some of the germs evidently remain, for a time at least, at the point of invasion and vicinity; here they grow, and as they grow, evolve the so-called ptomaines, which, being irritants, often cause an inflammation, and this, as in erysipelas, malignant œdema, cholera, and some forms of pneumonia, may go on without suppuration. Other bacterial forms cause the white blood cells to gather about the parts, and as they accumulate more and more, the leucocytes die, and we have inflammation with suppuration, as in abscess, furuncles, impetigo, and syçosis; other forms of bacteria cause inflammation with necrosis, as in diphtheria, hospital gangrene, etc.

Another class of germs proliferate at the point of invasion, and subsequently invade the deeper tissues. This is probably true in tuberculosis. The bacilli of tetanus appear to proliferate at the point of invasion, spread along the nerve trunks, and finally enter the blood. The germs of syphilis and of leprosy are at first localized, and finally invade other parts. The virus of hydrophobia appears to develop first

at the point of invasion, extends along the nerve trunks, and subsequently invades the central nervous system and blood.

In some diseases, the disease germs are transported through the lymphatic spaces and vessels; in others, the invaders enter the blood, multiply there, and either remain or are deposited in different organs, or in all parts of the body; this may be said of the germs of anthrax, of typhoid fever, of acute miliary tuberculosis, and of the various acute eruptive fevers.

An exact *classification* would be entirely premature. The most we can say at present is, that the effects of pathogenic germs may be local and constitutional, the result of the absorption of their toxic products. Take, for example, a case of malignant scarlatina, where a child, in the midst of perfect health, is suddenly seized with vomiting, perhaps violent diarrhoea, with a remarkably frequent and small pulse, and such a sudden collapse that the pulse disappears within eight to twelve hours, the face and the extremities become cold, and death occurs in coma within twenty-four to thirty-six hours, without any eruption having appeared. Such symptoms point to paralysis of the cardiac center; and if these and all the various shades of brain symptoms in infectious diseases are not the result of ptomaine intoxication, it will be difficult to account for them in any other manner.

If it be true that infectious diseases are produced by the invasion of bacteria, their subsequent development, and the poisonous compounds evolved during their growth, the next question to be disposed of is:

How and under what circumstances does the disease terminate? We have seen that, under certain circumstances, the accumulation of disease germs and their products may be so great in the capillaries as to destroy the vitality of the part by cutting off the blood-supply. Now this may be a purely local condition; but let us figure to ourselves all the blood of the body charged with an organic poison, the capillaries obstructed with the invaders; and should this perchance take place in the same vital organ, we can at once appreciate how either or both of these conditions may produce death. If death does not take place under such circumstances, it is because at this critical moment something occurs which renders further proliferation of the germs and ptomaine production impossible, and recovery ensues, provided alterations of the tissues do not prolong the disease.

It was at one time assumed that the bacterial invaders were eliminated by the kidneys and other emunctories of the body. This appears to be true of the typhoid bacilli, although Wyssokowitch's experiments indicate that, in animals, at least, they are not thrown off by the kidneys, unless these organs are themselves the seat of disease. Nor can we ascribe the destruction of the disease germs to the leucocytes alone, for it seems, if they were not vigorous enough to cope with them at the onset, it is not likely that their phagocytic power increased during the illness, unless it becomes a question of numerical strength.

It is possible that the ultimate means of recovery are brought about by different agencies in different diseases. In some, the parasites may perish because of the exhaustion of certain substances necessary for their growth; in brief, they die for want of suitable food. In others, they may die by the toxins of antagonistic species, or the very poison evolved by the bacteria may accumulate to such an extent as to prevent

their own growth, and they die self-poisoned. In still others, a tolerance of the system may be established to the particular poison, so that it no longer produces toxic effects. We see this wonderful tolerance almost daily illustrated in persons who have become the victims of enslaving drugs, taken in sufficient doses to kill a dozen other men.

What is true of the infectious diseases in man is equally true of certain diseases in animals, such as anthrax, blackleg, chicken cholera, diphtheria, foot and mouth disease, glanders, hog cholera, hog erysipelas, hydrophobia, influenza in horses, pleuro-pneumonia of cattle, rinderpest, swine plague, tetanus or lock-jaw, Texas fever, tuberculosis; and as these diseases are frequently very destructive and carry off entire herds, the subject is one of peculiar interest to the farmer, quite apart from the effects upon the milk-supply.

Much space has been devoted to the presentation of the germ theory of infectious diseases, because it is the only one by which we can rationally explain the occurrence of epidemics of typhoid fever, scarlet fever, diphtheria, etc., spread through the medium of the milk-supply. We feel perfectly confident that these and similar diseases are produced by a living germ, which is eliminated from the body in a living state, and may gain access into the system, among other vehicles, in the milk; and if the condition of the system affords a suitable soil for its proliferation, the disease in question is produced. If we reject the germ theory, we would indeed be forced to the conclusion that a disease like typhoid fever may be caused by fecal and putrescible matter, when present in milk or water in infinitesimal dilutions. A poison may produce sickness and even cause death, but it cannot infect, because it cannot reproduce itself.

Other Micro-organisms.

In addition to the bacteria, there are other micro-organisms which perform similar functions in nature; some of these are also pathogenic, and all are of interest in connection with the dairy industry:

1. *Molds.* Every one has seen the variously colored molds upon stale articles of food, especially jams and jellies kept in damp and dark places; they consist of fungi, are made up of vegetable cells surrounded by a cellulose membrane, and contain fatty matter and frequently a colored protoplasm; they grow in elongated threads, called hyphæ, which in their totality form the thallus, and when they develop upon a suitable soil, speedily grow into an entangled mass known as the mycelium. Some of the hyphæ are fertile and produce spores, mostly in the form of round or oval cells, which may develop additional mycelia. While it has been shown that such spores may develop in the system, especially in the kidneys, into mycelia, further fructification seems impossible. The elongated threads or hyphæ, however, have the faculty of penetrating even solid substances, as the teeth, for example. Fungi, like the bacteria, require a certain amount of organic food, such as nitrogen and carbon, also water, mineral salts, and air, but a very small amount of oxygen is sufficient; they flourish best in slightly acid media, and the majority perish in alkaline fluids. The bodies of warm-blooded animals do not favor their growth. Fungi and their spores show a remarkable degree of resistance to heat and cold, and are only destroyed at a temperature of 212° Fahr. and by steaming; but this can be more readily accomplished by various chemical agents. Some flourish

best at a temperature between 50° and 86° Fahr.; others between 86° and 104° Fahr.; while still others, unlike the bacteria, may grow at a temperature of 38° to 36° Fahr.

A number of the fungi form ferments, and may thus render insoluble substances soluble, but in their growth they do not set free any of the poisonous compounds known as ptomaines. Of the pathogenic fungi may be mentioned the *favus* fungi, or *Achorion Schoenleinii*, which causes a disease of the skin characterized by yellow umbilicated crusts. The *Trichophyton tonsurans* produces a disease erroneously called ring-worm; if it invade the scalp it leads to the destruction of the hairs in the form of rounded patches, and when it affects the hairy part of the face it is called the barber's itch. The *Microsporon furfur* invades the horny layer of the skin, where it causes yellowish spots and a furfuraceous exfoliation, of which dandruff is a typical example. Indeed, a large number of skin diseases are caused by the action of parasitic fungi. One of the *Mucor* family, the *Mucor corymbifer*, has been known to invade the ear and cause violent inflammation of the canal and drum, not to mention the preliminary symptoms such as partial deafness, unpleasant noises, etc., which lasted for weeks. The *Penicillium glaucum* is found on Roquefort cheese—the greenish streaks seen in this cheese are masses of this mold—and is said to play an important rôle in its ripening. The growth of molds on the surface of some kinds of soft cheeses is encouraged. Species of the *Aspergillus* family are frequently present in milk, and have been known to cause gastro-enteric disorders, and some of these blue and black molds have been known to cause pneumonia in birds. The *Mucor* family (white mold) frequently invades milk and other articles of food, and produces diseases of the digestive tract.

2. *Yeast plants or fungi* are composed of round and oval cells, surrounded with a membrane, and grow in delicate, horizontal filaments, from which short, articulated pedicles take their rise; the uppermost cells of the pedicles germinate and produce new sprouts; they also require organic matter for food, such as nitrogen, carbon, together with water and mineral salts. While oxygen is not essential, they proliferate best under the free admission of air. The yeast ferments prefer an acid media and a temperature between 76° and 86° Fahr., while their activity usually ceases at the freezing-point. Sunlight does not arrest their growth, and agitation rather promotes it. These organisms are the active agents in the fermentation of beer, wine, and koumiss. Of the fungi, the *Oidium albicans* or *Oidium lactis* is frequently met with in milk, and is liable to produce pathogenic effects by attacking the mouth and digestive tract of infants, causing aphthous ulcers or thrush.

Protozoa. Since some of the infectious diseases have been attributed to this class of micro-organisms, it is desirable to indicate, at least, that they constitute the lowest animal sub-kingdom, and include the lowest and simplest forms of animal life. Their bodies consist either of a single cell, or of an aggregation of cells, each of which seems to retain its independent existence. The protozoa are divided into sarcodina, sporozoa, and infusoria.

The *sarcodina* are single cells of protoplasm, endowed with the faculty of absorbing nutriment, and also with motion by means of little shoots, which they can extend and retract; their usual habitat is the water—

fresh, salt, as well as stagnant waters; they are also found in slime, moist sands, the moss of trees, and in horse manure. Reproduction is accomplished by fissure into two or more parts; drying does not destroy their vitality. The amœbæ belong to this class, and Kartulis and Uplavici have shown that certain forms of amœbæ not infrequently found in impure water and contaminated food are the cause of dysentery.

The *sporozoa* are also composed of single cells, and are found to inhabit the cells of many animals. The sporozoa include the gregarinidæ, microsporidiæ, myxosporidiæ, sacrosporidiæ, and the coccidiæ. The latter are composed of ovoid or spheroid cells, and are of special interest to us, as they frequently infect the bodies of mollusks, birds, dogs, cats, rabbits, pigs; they have also been found in the organs, and in the blood, skin, muscles, and intestinal tract of man, and are reproduced by spore-formation. To this class belongs the *Plasmodium malarie*, discovered by Laveran, and which has been so constantly found in the blood of malarial patients as to be regarded as the cause of malarial fevers.

Some of the protozoa are believed to poison the animals which they infect, and the toxic symptoms sometimes observed after eating fish and other meats have been ascribed to their presence. Species of the *myxo-* and *sarcosporidiæ* have been found in the gullet, and in the flesh of fish and other animals; and such conditions as anæmia, paralysis, and skin eruptions have been attributed to their presence; but this entire field, while offering prospects for brilliant discoveries, has not been worked sufficiently to permit the formulation of any definite conclusions.

The Cultivation and Study of Bacteria.

It is of course well known that the bacteriologist, in the study of micro-organisms, cultivates them in different media, or soils, and sows them with the expectation of a crop, just as the farmer sows his seed or plants his potatoes. Instead of ordinary soil, he resorts to solutions of gelatine, beef extract, meat broths, milk, agar, potato, etc., and in order that he may not get a "mixed crop," he first sterilizes his culture medium, *i. e.*, renders it germ-free, by exposure to heat. The farmer does practically the same thing by rooting out the weeds and by proper cultivation of the soil. One of the most common culture media employed is a 10% solution of gelatine, mixed with beef-tea, pepton, and a little cooking salt, and then made neutral or *slightly alkaline*. If, however, we wish to cultivate the germs at a higher temperature than 60° or 70° Fahr., and many only develop at blood-heat, we have to employ a more solid substance, as the gelatine mixture would melt and scatter the bacteria instead of developing them in so-called colonies. For temperatures above 71° Fahr. we employ agar, derived from a Japanese seaweed, in a 1% solution, mixed with beef-tea and pepton, and treated as above. This makes a gelatinous, solid, and transparent mass.

These or other culture media are placed in glass test-tubes, about one third full, closed with plugs of cotton, and carefully heated, so as to kill all germs which may be present. The next step after sterilization and cooling of the media is their inoculation, which is done by introducing into the tubes with a platinum wire, previously sterilized by heating it to redness, a minute quantity of the bacteria-containing material (a drop of blood, milk, etc.). After which the culture-tubes are again

plugged with cotton and set away in a warm place or incubator until the fluid begins to get turbid, which is an indication of germ development. By a careful microscopical examination we can tell whether we have a *pure culture*, *i. e.*, a growth or colony composed of one species only, or a "mixed crop" of several forms of bacteria growing in the tube. In the examination of milk and other liquids we must expect quite a mixture of bacteria, and it is very desirable to isolate them, with a view of studying each species, in separate tubes. This, at one time, was a very difficult task, but Professor Koch has overcome it all by a very simple method, called the "plate-culture."

Suppose we have a sample of milk, containing several varieties of bacteria, which we wish to isolate and study; the first thing to do is to mix, in a test-tube, a very small amount of the suspected substance, such as water, milk, etc., with a much larger quantity of the above described nutrient gelatine, rendered just fluid by heat (a temperature above 113° Fahr. must be avoided, as it may kill the bacteria which we are endeavoring to grow). The mixture is well shaken to insure equal distribution of the germs, and is poured in thin layers upon a glass-plate previously sterilized; the plate is now covered with a bell-jar to exclude the germs floating in the air and to prevent its drying, and should be kept at a suitable temperature. The gelatine or agar thus employed solidifies upon cooling, and the bacteria presently begin to grow. At the expiration of a few hours or days, we will observe upon this film, sometimes with the naked eye, sometimes only with the aid of the microscope, little spots or masses, each one consisting of hundreds or thousands of the organisms, developed from a single germ into a colony. It may happen that two or more of the original germs developed at the same point, and thus give us a "mixed colony," but this is not usually the case, and by examining the plate under the microscope we can see the different forms of the colonies; some have liquefied the gelatine around them, others have not; some are chromogenetic germs and are colored red, green, yellow, etc., while others are perfectly colorless; some have well-defined, smooth edges, others are fringed, jagged, etc.

The characteristics of the different colonies are so well defined that we have no difficulty in distinguishing them, and as each colony is composed of a distinct species of bacteria, we are not only able to count them, but, directly under the microscope, by means of the point of a sterilized platinum wire, they can be picked out, and sown into our culture media, with a view of getting a pure culture or clean crop. In this way, strange as it may appear, the different species of these very minute organisms can be *absolutely identified*; and, by counting the colonies in a definite volume of the gelatine, we can estimate the number of bacteria contained in a given liquid. When we have a pure culture of a particular germ, we can study its life-history, and determine the character of food and the degree of temperature best suited for its rapid development, and the maximum and minimum temperature necessary to kill it. We can also add certain chemical solutions to determine which of these, and in what proportion, constitutes the best germicide, a matter of great importance in disinfection and in the prevention of disease. The bacteriologist also cultivates them in very large quantities, and determines, by a chemical examination of the fluid, what poisons or compounds have resulted from their vital activity; and by experiments upon animals, he is enabled to study closely the

probable effects of these germs and their products upon man, and also upon other species of bacteria. In this way, too, the so-called *serum* and *antitoxine treatment* found its origin, which is based upon the assumption already referred to that recovery in some cases is due to the fact that the very poison evolved by the bacterial invaders has accumulated to such an extent as to prevent their own growth, and they die self-poisoned, while in some diseases the original invaders are killed by the toxins of antagonistic species. Serum therapy opens a new field, and time alone will show the results of a method which seems perfectly justified by laboratory experiments, and is especially applicable in the treatment of at least some of the infectious diseases, in which we probably can aid nature in her own method of bringing about a cure.

Milk as a Culture Medium for Disease Germs.

The labors of numerous bacteriologists leave no room for doubt that milk is not only a splendid culture medium for the ordinary and comparatively harmless milk bacteria, but also for disease germs. This is especially true of the germs of erysipelas, pneumonia, typhoid fever, diphtheria, glanders, and tuberculosis, and, in a more restricted sense, also of cholera.

Heim has shown that the bacillus of tuberculosis may remain alive in milk ten days old, and that this germ and the bacillus of typhoid fever may retain their vitality in butter. Indeed, Gasparini³³ found the tubercle bacillus still alive in potted butter one hundred and twenty days old, and Galtier³⁴ found them still living in cheese at the end of thirty-five days. Abbott³⁵ has shown that the germs of tuberculosis will not only survive, but actually proliferate in milk. While cholera germs may grow in perfectly fresh milk, and, according to Laser,³⁶ remain alive in butter for four or five days, Cunningham has shown that souring of milk at once arrests the development of these germs. Professor Guillebeau³⁸ has discovered three different bacilli in milk derived from inflamed udders, and Adametz, Macé, and Hueppe³⁹ have described several kinds of micrococcus and streptococcus under similar conditions, which multiplied to such an extent that the gases caused the cheese to "heave." If these pyogenic or pus-producing microbes can do all this in cheese, what may the effects be in the human subject? To the writer it seems no longer a mystery that the milk from animals suffering with garget should be the cause of diphtheritic sorethroats, erysipelas, and other manifestations of a streptococcus infection; indeed, it is quite possible that a train of symptoms closely resembling scarlet fever may result from such an infection, not to mention the many cases of abscess, boils, and suppurative processes, as well as gastro-enteric disorders, which may be caused by such milk.

Normal Milk Bacteria. We are now prepared to say something of the micro-organisms which have been so constantly found in milk and dairy products, as to be considered normal milk bacteria, and they are not only of interest to the sanitarian, but also to the milkman, the butter- and the cheese-maker.

The Souring of Milk. We have already intimated that the curdling and acid reaction of milk, which takes place some time after milking, is brought about by the agency of bacteria. Lister,⁴⁰ in 1873,

found in milk several forms of bacteria, one of which was instrumental in the production of lactic acid, while others had different effects; he also found that this organism was quite common around the dairy, but not common elsewhere, even in the barn. Bacteriologists have made this subject one of special study, and, according to Professor Conn,⁴¹ over two hundred distinct types of dairy bacteria have been described, and we know now that lactic fermentation is caused not only by one, but also by quite a number of species of bacteria; they all proliferate in the milk, and set up a fermentation of the milk-sugar, which is converted into carbonic acid and lactic acid, and when sufficient lactic acid has been evolved, the milk coagulates, and, what is more interesting, the very bacteria which have brought about this change die self-poisoned in the product of their own life's processes, and other species begin their work in the medium thus prepared.

Among a number of lactic bacteria, Hueppe⁴² describes one bacillus about $\frac{1}{25000}$ of an inch long by about $\frac{1}{62500}$ of an inch thick, which grows between 50° and 113° Fahr., but most rapidly at 95° Fahr. If introduced into sterile milk it produces uniform curdling within fifteen hours, provided the temperature is kept between 77° and 86° Fahr. He has also isolated two micrococci; and Marpmann, Krueger, and Grotenfelt⁴³ have described other bacteria which cause the souring of milk, though they may not act on milk precisely in the same way. So, for instance, Grotenfelt's *Bacillus acidi lactici* produces alcohol, as well as lactic and carbonic acids. Most of the lactic bacteria do not develop spores, and are generally killed by a temperature of 158° Fahr.

Where do these germs come from? Pasteur⁴⁰ called attention to the fact that milk from animals free from disease, and when drawn with a sterilized tube direct from the udder, is free from germs; hence, we may safely conclude that these organisms get into the milk from external sources, such as the air and dust of the stables, the hands and clothing of the milker, the hair or udder of the cow, the hay and straw, and especially from the milk-buckets. Von Freudenreich⁴⁴ points out, however, that the first half gill or so of milk obtained from the cow is particularly rich in germs, which he attributes to the fact that after milking a little milk remains in the lower part of the teat, where, owing to the large caliber of the lacteal ducts, it is not completely shut off from the exterior, hence readily infected, and the conditions being favorable a rich crop is produced before the next milking. Dr. Schultz⁴⁴ has shown that such milk contains some 1,360,000 germs per cubic inch, while the milk drawn later is free from bacteria. Professor Guillebeau⁴⁴ has demonstrated the importance of perfectly clean udders and hands by counting the number of bacteria under different circumstances. It has been shown by Sedgwick and Batchelder⁴⁶ that with special precautions on the part of the milkman, the number of bacteria in fresh milk may not exceed 500 to 1,000 per c.c., but when he uses the ordinary flaring milk-pail, with more or less rough disturbance of the bedding and shaking of the udder, as many as 30,500 bacteria have been counted in 1 c.c.

Dr. Bryce,⁴⁵ of Toronto, has shown that milk which had been kept for several days in a cool place, and then contained 10,000 bacteria per c.c., was afterwards allowed to stand in a warm room some twenty-four hours, at the end of which time they had increased to 1,000,000 per c.c.

Rapidity of Germ Development. Von Freudenreich⁴¹ exposed a sample of milk containing 153,000 bacteria per cubic inch, to a temperature of 59° Fahr.

	Bacteria per Cubic Inch.
1 hour after it contained	539,750
2 hours after it contained	616,250
4 hours after it contained	680,000
7 hours after it contained	1,020,000
9 hours after it contained	2,040,000
25 hours after it contained	85,000,000

Other samples containing 391,000 bacteria per cubic inch were kept at a temperature of 77° and 95°.

Bacteria per Cubic Inch.		
	At 77° F.	At 95° F.
2 hours after	{ Plate liquefied at time of examination }	1,275,000
6 hours after		45,900,000
9 hours after	36,550,000	57,800,000
24 hours after	13,702,000,000	13,812,500,000

We can now appreciate why Professor Renk has found in the milk-supply of the City of Halle from 6,000,000 to 30,000,000 bacteria per c.c.—far exceeding the number usually found in the sewage of cities. Sedgwick and Batchelder⁴⁶ found the average number of germs in fifty-seven samples taken direct from the milk-wagons in the City of Boston to be 2,355,500 per c.c., whilst the average of sixteen samples taken from groceries in the same city was 4,577,000 per c.c.; the difference being one of time and comparative freshness. Loveland and Watson found in the milk of Middletown, Conn., from 11,000 to 300,000 of germs per c.c., and Russell in the milk of Madison, Wis., from 35,000 to 275,000 in April, and 380,000 to 2,000,000 per c.c. in May and June.

Thunderstorms not Directly the Cause of Souring the Milk. The popular belief that electric storms will sour milk is of course very widespread, but it has been experimentally proved, by discharging electric sparks over the surface of the milk, that electricity is not capable of souring it, and since we know that this fermentation is caused by bacteria, we justly infer that the same meteorological conditions which have brought on the thunderstorm have also hastened bacterial growth, and the observant farmer knows very well that if he cools his milk immediately after milking and keeps it in a cool place, it is not affected by thunderstorms, and that during sultry weather his milk, unless it is kept cool, is apt to sour without a thunderstorm.

Butter-making. The very germs which are so objectionable to the milkman, by souring his milk, appear to be of benefit to the butter-maker, who allows his cream to "sour" or "ripen" for a number of hours before churning, which, of course, means a rapid multiplication of the lactic-acid organisms, which in turn causes the souring of the cream; but these changes are not confined to this lactic-acid organism, but the warm temperature also develops other bacteria. Some of the very best butter is made from slightly acid cream. Such butter keeps and tastes much better, and the cream churns more readily and yields a larger quantity of butter, but its chief value lies in the superior flavor. For this reason the butter-maker is very apt to add a small quantity of slightly acid milk to the cream, and in order to have every day the

proper quantity of sour milk to act as a "starter," Von Freudenreich⁴⁴ recommends the addition of two to four pints of sour milk to fresh, or still better, pasteurized skimmed milk, which will be just suited for the treatment of the cream the next day. It is of great importance that the milk thus added contain only such bacteria as produce not only proper ripening, but also an agreeable flavor. Both of these conditions are brought about by the action of bacteria, probably during the first stage of decomposition. We also know that some species of bacteria will produce foul-smelling substances, and the butter will acquire a disagreeable odor and taste. Storch,⁴⁵ a Swedish scientist, was the first to assume that the butter aroma was due to bacterial growth, and endeavored to isolate the species producing the proper aroma. Whilst he failed, Weigmann,⁴⁷ of Kiel, succeeded in finding such a microbe, and by ripening cream with pure cultures of his micrococcus, he gets butter of a uniformly excellent flavor and quality. For this purpose he cultivates his germ in milk previously pasteurized, and this he adds the following day to the cream to be ripened. Weigmann's coccus is probably not the only microbe capable of imparting a desirable flavor to butter, and the time will come when the cream will be separated from perfectly fresh milk with the centrifugal machine, inoculated with desirable cultures or ferments, when the ripening of the cream will result in uniform products of superior butter.*

Cheese-making. It is well known that rennet, a preparation usually made from the stomach of a calf, has the power of coagulating the casein of milk in a very short time, and this appears to be the only type of milk fermentation caused by an unorganized ferment. It would lead us too far to offer what has been written on the action of rennet on milk, but will simply say that the rapidity of its action depends upon the amount and quality of the rennet, and the temperature, and may be lessened by alkalies and increased by various salts. The active principle of rennet is a chemical ferment, a common product of bacterial growth, and is regarded as distinct from other digestive ferments; it is destroyed by a temperature of 158° Fahr., and acts best at about 95° Fahr.

Ferments of Casein. There is a large group of bacteria, all capable of curdling the milk, not by the formation of lactic acid, but by producing a substance which acts like rennet. Duclaux⁴⁴ has described such a microbe, which, at a temperature of 98.5° Fahr., was able to curdle

* Since writing the above, Professor H. W. Conn, of Wesleyan University, has discovered a bacillus, named by him "Bacillus No. 41," which, while it is an acid organism, does not noticeably sour milk or cream. In the use of this germ, a large culture of the organism is added directly to the ordinary cream and the ripening is carried on as usual. The peculiar effect of this organism appears to be to add to the butter a flavor which the butter-maker describes as a "quick grass" flavor, such as is obtained in June butter. This agreeable aroma appears to be added to the butter in all conditions in which the experiments have thus far been tried. It has been tried, according to Conn, upon poor cream and upon good cream, upon fresh and stale cream, in creameries of the very highest character and creameries of a very much lower grade, and the verdict in all cases has been favorable to this method of inoculating cream. The ferments prepared by Conn are put up in such a form that they can be distributed to the creameries, and it is claimed that the butter obtained from the cream thus ripened retains its pleasant flavor for a longer time. Professor Conn very properly adds that "it is impossible to say how long any one of these special species of bacteria will hold its characters under the conditions of cultivation to which it is subjected. Bacteriologists have learned that the physiological characters of bacteria species undergo changes with continued cultivation. Possibly, therefore, the species now in use may lose their powers of producing good butter, and thus compel our bacteriologists to obtain others." * * * (Dairy Bacteriology, Bulletin No. 25, U. S. Dept. of Agric., 1895.)

thirty times its own weight of milk in eleven minutes, and one hundred and twenty times its own weight in two hours; and Professor Conn has obtained from pure cultures of another species a substance which acts like rennet. It has been conclusively shown that these and other organisms are instrumental in causing the ripening of cheese, and are therefore a necessity to the cheese-maker. Duclaux places these various microbes in a common group, which he calls "casein ferments." Cheese is absolutely worthless without the agency of these germs. New cheese is not palatable, it tastes like fresh milk-curd, and acquires its proper flavor only after weeks or months of bacterial action; and that this ripening is due to bacteria was proved by Adametz, who treated fresh cheese with germicides, and this cheese did not ripen. He also estimated the number of organisms present in cheese, and found them to be from 25,000,000 to 165,000,000 per ounce, which increased slowly during the ripening process. He also found at first many species present, but as the ripening went on, one species predominated over all others. These results have since been confirmed, and Dr. Schaffer and others have shown that cheese made from boiled milk, and, therefore, free from bacteria, will not ripen. Duclaux calls attention to an important fact, that his microbe (*Tyrothrix tenuis*) will resist, for a minute at least, exposure to moist heat of from 239° to 243° Fahr. Numerous species belong to the casein ferments, and but few have been carefully studied. Duclaux alone isolated ten different varieties, and the butyric ferments and many widely distributed microbes, like the hay and potato bacilli, and other soil bacteria, are believed to belong to this group. There is no doubt that the different flavors of different cheeses are due to the action of different species of micro-organisms, in the ripening, and the time may come when the cheese-maker will make use of fresh milk and inoculate it with various ferments, each of which will produce for him a definite quality and flavor of cheese, and thus insure uniform products, but so far all efforts to hasten or improve the ripening process by adding pure cultures have failed. (Conn.)

Abnormal Milk Bacteria. We have briefly considered the action of certain bacteria, which occurs with such uniformity as to be regarded a normal process; we have shown that while these bacteria are the enemies of the milkman and milk-consumer, they prove friends to the butter-maker and are indispensable to the cheese-maker. But as elsewhere, so in the dairy, we have normal and abnormal bacteria; for quite apart from the germs of infectious diseases, with which the milk may be contaminated in the manner repeatedly pointed out, we have to deal with micro-organisms, which produce not only "sick milk," "sick butter," and "sick cheese," but also, when consumed, "sick people." All these effects are primarily due to abnormal milk bacteria or organisms, and we can with considerable propriety declare that milk is liable to certain microbial diseases, and among the first to be considered are:

Abnormally Colored Milk. Milk may acquire abnormal color in consequence of germ development, and while the fungi and germs do not themselves give the color, Schröter believes that they develop various anilines, such as aniline blue, fuchsin, etc., from the casein, which is then imparted to the colonies and the milk. These colors, as may be inferred, occur usually in the form of patches upon the surface of the milk, and unless the latter is shaken do not impart a uniform color.

While the use of such milk has proved injurious to the consumer, there is comparatively little danger from this source, as few households would accept such milk, and the subject is, therefore, of greater importance to the producer of an unsalable article of milk.

1. *Blue Milk*. According to Parkes the *Oidium lactis* or *penicilium* are germ growths which produce a blue color in milk. Fuchs, in 1841, pointed out the probable cause, but was unable to prove it. In 1880, Neelson discovered a bacillus capable of coloring milk blue, but as Professor Hueppe was the first to study its life-history and accurately described the organism, it has been called "*Bacillus cyanogenus* Hueppe." This microbe is from $\frac{1}{25000}$ to $\frac{1}{6250}$ of an inch long and $\frac{1}{83000}$ to $\frac{1}{30000}$ of an inch thick, and possesses motile power; it does not liquefy gelatine. It does not develop a blue, but rather a dirty gray pigment in sterilized milk, hence the bacteria which are instrumental in producing lactic acid appear to prepare the way for the production of the peculiar pigment. The *B. cyanogenus* is destroyed by exposure for one minute to a temperature of 170° Fahr. The blue color usually develops in twenty-four to seventy-two hours.

2. *Red Milk*. If milk, when first drawn, presents a red color, it is probably due to admixture of blood, and not due to the action of chromogenic germs, as they require several hours to multiply and produce the red pigment. Quite a number of germs appear to have the property of imparting a red tint. Hueppe has described an organism, the *Bacter. lactis erythrogenes*, which is from $\frac{1}{25000}$ to $\frac{1}{17500}$ of an inch long, and from $\frac{1}{83000}$ to $\frac{1}{62500}$ of an inch thick; this bacillus appears to avoid the cream, but colors the skimmed milk, provided it is kept in the dark. It liquefies, and also colors gelatine red. The *Bacillus prodigiosus*, when present in milk, gives rise to the production of red patches—it is the same bacillus which imparts the red stain upon sliced raw potatoes.

The *Sarcina rosea*, described by Menge, multiplies upon the surface, and imparts to the cream layer a red color, which gradually permeates the entire milk; another *Sarcina rosea*, described by Schröter, imparts to the milk a brownish-red color. Another organism, belonging to the yeast fungi, discovered by Dr. Schaffer, and described by Demme, viz.: the *Saccharomyces ruber*, is believed to color milk and cheese.

3. *Yellow Milk*. Several varieties of bacteria are believed to possess the power of coloring milk yellow, but the best known is the *Bacillus synxanthus*, described by Schröter; it is a motile microbe, and curdles milk by means of a rennet-like ferment, but it afterwards redissolves the curd, and produces a yellow pigment.

Professor Conn says that the production of pigments in milk is not an uncommon occurrence, and that we have now knowledge of bacteria-producing pigments corresponding to all of the primary colors. In addition to those already mentioned, he refers to:

4. *Orange Milk*, caused by *S. aurantiacum*.

5. *Green Milk*, by *B. floescens*; and

6. *Violet Milk*, by *B. violaceus*.

The pigments, in most of these instances, do not appear very rapidly, and he considers that blue milk is the only dairy infection which attacks the milk rapidly, and produces in a short time a very prominent pigment, whilst the other forms may consume days or weeks, and are, therefore, of no practical interest, except to the bacteriologist or cheese-maker.

Abnormal Taste of Milk. 1. *Bitter Milk.* While different foodstuffs, and even the age of the milch cows, may have a tendency to render the milk bitter, it has been shown that the most common cause of this defect is the action of several species of organism. Not less than four have been described so far, viz.: Weigmann's bitter-milk bacillus, which is from $\frac{1}{15600}$ to $\frac{1}{13800}$ of an inch long and about $\frac{1}{27700}$ of an inch thick, and when inoculated in sterile milk imparts a very bitter taste within twenty-four hours; it does not multiply in cheese. Professor Conn isolated a micrococcus from *bitter cream*; it liquefies gelatine, is aerobic, and when inoculated into milk it produces a bitter taste. Duclaux has described a bacillus (*Tyrothrix geniculatus*) which renders milk, as well as soft cheese, bitter. Von Freudenreich found a micrococcus in very bitter cheese, which, when inoculated into milk, also produced a bitter milk; it differs from Conn's micrococcus in this, that while it also liquefies gelatine, it does not, like Conn's, make it stringy. These bacteria belong mostly to the group of casein ferments which develop from spores, and are therefore more resistant to heat; and it is believed that other species of the casein ferments are capable of making bitter milk. Vandenhojdouck, quoted by Conn, reports an instance of bitter milk in a whole herd, produced by feeding to the cattle turnips washed in foul water; but as the milk of cows fed with turnips often tastes bitter, it is impossible to say whether in these instances a micro-organism is the direct cause.

2. *Soapy Milk.* Weigmann⁴⁷ has discovered a bacillus capable of imparting to milk, within twenty-four hours after inoculation, a pronounced soapy taste, and thus explained the mystery of soapy milk. He also demonstrated this microbe in the straw of the bedding, and recommended not to feed straw to cows, nor to disturb their bedding during milking. This troublesome infection interferes with the churning of the cream.

Professor Conn refers to a *tainted milk*, which appears to be caused by a distinct species named *Bacillus fetidus*.

Abnormal Consistency of Milk. A *slimy* or *stringy* fermentation of milk is by no means uncommon, and occasionally produces great loss to dairymen; because such milk will furnish no cream, it cannot be churned, and is unfit for drinking purposes. The cause of slimy milk was for a long time a mystery, and attributed to disease of the udder, variations in the food of the cow, and differences in conditions surrounding the dairy, but we now know that it is another result of bacterial action, and that the infection is easily transmitted, and causes the slimy or stringy character within twelve or fourteen hours. Quite a number of species appear to possess this power; while some induce only a slight sliminess, others render it very tenacious, and one, described by Conn,⁴¹ renders the milk so stringy that it can be drawn into threads ten feet long. Some of the organisms render the milk viscid in their early growth, others only after several days, while still others first curdle the milk and then dissolve the curd into a slimy solution. In the manufacture of Edam cheese a stringy milk is artificially produced by Weigmann's streptococcus *Hollandicus*. Among the various microbes so far isolated, is a micrococcus, described, in 1883, by Schmidzmülheim, which is about $\frac{1}{25000}$ of an inch in diameter, with motile power, and partly arranged in chains. Duclaux has discovered two species of cap-

sulated bacteria, which he called *Actinolacter* and *Actinolacter polymorphus*. Loeffler's⁴¹ *Bacillus lactis pituili* and Adametz's⁴² *Bacillus lactis viscosus* belong to this class. The latter is $\frac{1}{20000}$ to $\frac{1}{14300}$ of an inch long and about $\frac{1}{20000}$ of an inch broad, and was first isolated from brooks near Vienna, polluted with the wastes of several factories. Van Laer⁴³ has described two bacilli first found in stringy butter, which, when inoculated into sterile milk, also render it viscid, and designates them as *Bacillus viscosus I* and *II*; the former produces, first, a slimy yellowish-green curd on the surface, which is later dissolved, when the milk assumes a greenish tint. Guillebeau, of Berne, isolated an organism, which he called *Micrococcus Freudenreichii*, and which is very common in some of the Swiss dairies; it is about $\frac{1}{12500}$ of an inch in diameter, non-motile, and liquefies gelatine; it grows best at a temperature of 68° Fahr., and the milk can be drawn into slender threads $1\frac{1}{2}$ to 3 feet long; exposure for two minutes in boiling water kills this germ. Schütz's micrococcus and Guillebeau's bacillus, and the *Bacterium Hessii*, as well as a number of the potato bacilli, are believed to have the power of making milk slimy or stringy.

Abnormal Forms of Fermentation. In addition to the well-marked classes of fermentation already noticed, there are many, of which very little is known beyond the fact of their existence, and we will have to wait for further information until the complex processes of fermentation and decomposition are fully known. There are doubtless a large number of saprophytic germs, which only occasionally find their way into milk, and as it furnishes proper food for these accidental guests, they may grow in it to almost any extent, with the production of poisonous substances, of which tyrotoxicon is a typical example. It is altogether probable that the germs which produce this poison will be isolated and described before many years.

Quite a number of bacteria have been described, on account of their harmful relation upon the manufacture of cheese; they appear to split up lactic sugar with such energy that they produce a large volume of gases, which causes the cheese to "heave," and are responsible for the production of abnormally large holes, most frequently seen in Swiss cheese. Von Freudenreich has isolated a bacillus which he named after Dr. Schaffer, and has been able to inoculate milk and produce cavernous cheeses at will; this bacillus is somewhat widespread, and he also found it upon potatoes, and thinks it is better to use lard instead of potato broth for smearing the hands before milking. He also believes this bacillus to be related to the *Bacterium coli commune*, a fecal bacillus, and advises great care, lest the milk should be contaminated, during milking, with cow-dung.

A matter of extreme importance to the sanitarian, as well as to the cheese-maker, is the fact that the milk of animals suffering with garget, or other inflammatory affections of the udder, contains a number of species of bacteria, all capable of producing gases, and, therefore, well-marked cavernous cheese. This subject has already been referred to, and suggests the possibility of an untold amount of suffering from the consumption of such milk.

There are also bacteria which, in their activity, evolve some of the foul-smelling gases, such as hydrogen, and if present in sufficient quantity will also cause the cheese to "heave." Weigmann has described

two organisms, and one of Duclaux's slime-producing bacilli belongs to this class.

Alcoholic Fermentation of Milk has already been referred to, and the preparation of koumiss and kefir has been explained, and it will be readily understood that alcoholic milk fermentation is the result of bacterial action, either with or without the presence of certain milk yeasts. Duclaux, Grotenfelt, Kayser, Weigmann, and others have described various yeasts; some curdle the milk and produce only small quantities of alcohol, while others produce more of alcohol and very little lactic acid. We have referred to red yeast under chromogenic germs.

Butyric Acid Fermentation. In speaking of casein ferments, attention has been called to the fact that they curdle milk without the presence of an acid. It is highly probable that this action is brought about by the effects of alkaline bacteria, and that certain species of bacteria give rise almost simultaneously to two distinct forms of fermentation in milk; one producing a rennet-like curdling, and the other a digestion or dissolving of the casein. Pepton is readily demonstrated at this stage of fermentation, and not infrequently also leucin, tyrosin, ammonia, and butyric acid, and because of the presence of this acid this form of fermentation has been called butyric acid fermentation.

Pasteur first pointed out the fact that after sterilization of milk, the curdling took place under an alkaline instead of an acid reaction, and that the lactic acid bacilli were entirely absent, but instead, a number of other organisms were found, which have been constituted into a special group, called the "butyric bacteria." Such a division, according to Freudenreich, seems scarcely justifiable, because "butyric fermentation is not a uniform process. Butyric acid is rather to be regarded as a residue, resulting from the breaking down of casein and milk-sugar in various ways; it is only, in fact, like leucin, tyrosin, and ammonia, the final product of diverse kinds of fermentation." Scholl⁴⁹ describes the following organisms under the head of butyric acid fermentation, viz.: *Bacillus butyricus* (Hueppe), *Bacillus mesentericus volgatus*, *Bacillus liofermos*, and *Bacillus lactis albus* (Loeffler).

It was at one time assumed that the *Bacillus butyricus* and other organisms of this class were the sole causes of rancid butter. While it is true that rancid butter contains considerable quantities of butyric acid, and the development of the rancidity is simultaneous with the appearance of this acid, it is now held that rancidity is simply hastened by these organisms, and may occur when they are entirely absent, and that rancidity is probably due to a direct chemical oxidation, closely connected with the agency of sunlight. This group of *casein ferments* plays, however, an important part in the ripening of cream and cheese.

Prevention of Harmful Dairy Bacteria, and their Effects. The rôle of obnoxious dairy germs has been briefly sketched, and as they are an injury to the dairyman, and as unwelcome as disease germs are to the public, something should be said of their prevention. Heretofore the farmer has not been willing to accept the microbial origin of these milk defects, and the fodder has received most of the blame. It is true that many of the saprophytic germs and ferments are found in brewery and distillery refuse, and are, therefore, liable to contaminate the air of the stable, and thus gain access to the milk. Other germs may cling to the hay and bedding, walls, floor, etc., but in all these cases the fodder only plays an indirect rôle, and we may take it for granted that unless the

cow is diseased, her milk, except perhaps the first strippings, is perfectly free from germs, and whatever germs are found thereafter have gained access from without. The microbes may reach the milk from the surface of the udder or skin of the animal, from the hands or clothing of the milker, from the utensils, from the water and rags with which they are cleansed, nay, even from the air of the stable, milk-house, or dairy, not to mention such extraordinary practices as watering the milk with polluted water, or lubricating the hands of milkers with their own saliva, or with potato-broth, before milking, or spitting upon woolen rags and polishing-powder while scouring dairy utensils.

To those dealing with milk in any form, the various fermentations are especially undesirable and a source of loss; they, like their customers, want the milk pure and sweet, and when they realize that even the common souring is due to the action of germs introduced from without, they will certainly endeavor to reduce their number to a minimum, and this is best accomplished by absolute cleanliness, prompt pasteurization, and keeping the milk afterwards at a temperature between 40° and 45° Fahr.

By scrupulous cleanliness in the barn and dairy the number of organisms which get into the milk may be at least kept down; and just as the surgeon makes a careful toilet before operating, in order to prevent wound-infection, so the dairyman should make a careful toilet to prevent milk-infection. For this purpose, also, the animals should be kept clean, the udders thoroughly washed, and the first strippings of the milk should be rejected. Having learned that milk, especially when still warm, affords a splendid culture medium for all sorts of germs, and as the natural process of cooling in summer is entirely too slow, it is evident that after previous pasteurization it should be rapidly cooled by immersion in cold water, or by placing it upon ice. A practical application of this knowledge means increased profits to the milk-dealer and health to the bottle-fed babies.

The prevention of *abnormal fermentations*, such as blue milk, red milk, slimy milk, etc., is somewhat more difficult, but it may be accomplished by care. If a dairy be troubled suddenly with any of these milk-defects, the first thing to do is to determine the cause and stop it; the remedy often enough consists simply in extra cleanliness. The microbes of a certain form of stringy milk may cling to the fodder, like the leaves of butter-wort; other abnormal germs may be in the hay or bedding which the milker has handled, or they may be in the dust which has been stirred up in the milking-shed. Sometimes the trouble may be traced to one or more cows among a large herd; thus, the germs of red yeast were traced to five particular cow-stalls in one of the Swiss dairies, and after thorough disinfection the trouble came to a speedy end. In order to determine whether a stringy or abnormally colored milk comes from a particular cow, it is simply necessary to set aside samples of milk from the different animals in previously sterilized glass bottles, closed with cotton wool, properly labeled, and to examine them in the course of twelve to twenty-four hours. If the stringy milk be traced to a certain animal, a careful examination will reveal whether she is suffering from an inflamed udder, and if necessary, the aid of a veterinarian should be invoked. The animal may be free from inflammatory trouble, and still yield a stringy or slimy milk, in which case special care should be taken to wash the teats with a weak solution of acetic acid, for the purpose of removing any bacteria that may be present. If the milk drawn

with these precautions, directly into sterilized glasses, does not become stringy or only slightly so, we may conclude that the germs are present in the stable and gain access at the time of milking, and this can be readily proved by leaving uncovered glasses of milk in the stable. This procedure is also applicable to the determination of the source of the chromogenic germs. If the stable or dairy is found to be the source of infection, it should be thoroughly cleaned and disinfected. After turning out the animals, the dirt should be carefully removed; walls, floors, woodwork, and ceilings should be scrubbed, and then washed with *milk of lime*. The quicklime is dissolved in a little water, and then mixed with the same bulk of water. This method has proved very efficient for the disinfection of the premises. Sometimes, burning sulphur is used, in which case, after a thorough cleaning, all openings and crevices must be closed, and $1\frac{1}{2}$ ozs. of sulphur for every cubic yard of air-space should be burned in an iron pan, while the premises are still saturated with moisture. In the meantime, the animals should be carefully cleansed and their feet washed with soda-water; the personnel of the dairy should take a bath in a disinfecting solution, and should change their clothing, which should also be disinfected by boiling or steaming. If these milk-infections have invaded a cheese factory or a creamery, which receives its milk from different sources, the mischief may be traced to a particular farm by setting aside samples in the manner already indicated. The most troublesome infections to the cheese-maker are the gas-producing bacteria, which cause the heaving of the cheese. To determine the source, Walter has proposed a very simple test, by exposing the various samples in fermentation tubes, to a uniform temperature of 98° Fahr. If the milk be good, it should remain for ten to twelve hours without curdling or abnormal fermentation. These tubes, of course, should first be sterilized, either with steam or with sulphuric acid, and rinsed with water which has just been boiled. If the "fermentation test" fails to trace the mischief to any particular milk, the fault may lie in a polluted water with which the utensils have been washed, or in the rennet used to coagulate the milk, and in order to determine the exact source, Walter's test is again tried. This time sterilized skim-milk is placed in the fermentation tube and a little suspected rennet is added to some samples, while others are inoculated with suspected water; some of the tubes are inoculated with one drop only, others with more. Evidence of fermentation points with suspicion to either the rennet or water, and the evil can of course be corrected by changing the rennet or by the use of boiled water. Sometimes a sample of milk curdles badly upon the addition of rennet, and this may be due to the chemical composition of the milk, rather than to bacterial action. In order to avoid a whole batch from being spoiled, Dr. Schaffer has devised a test, described by Von Freudenreich:⁴⁴ "The milk is heated in a water-bath to 95° Fahr. and treated with a given quantity of rennet. It is then seen whether it curdles within the usual time. To 4 fluid ounces of milk is added $\frac{3}{8}$ of a drachm of a solution of rennet, prepared by dissolving one of Hansen's smallest rennet tablets in 18 fluid ounces of water. Sound milk ought to curdle in from ten to twenty minutes. If milk thus tested curdles badly or not at all, it should not be employed for cheese-making." If any of the abnormal fermentations are traced to the premises or utensils, a thorough cleansing and disinfection are indicated, and whenever steam is available this should be employed.

The addition of chemical substances, such as carbonate of soda, salicylic acid, borax, boracic acid, quicklime, and peroxide of hydrogen, with a view "of improving the keeping qualities of milk," cannot be tolerated from a sanitary point of view.

We earnestly recommend to the dairyman *absolute cleanliness* as the best safeguard to keep the germs out of the milk, speedy pasteurization and a *subsequent low temperature* for the purpose of inhibiting the development of the germs; and to the consumer we repeat the necessity of exposing the milk to a temperature of 170° Fahr., for the purpose of killing whatever disease germs may have gained access since it was pasteurized at the milk farm.

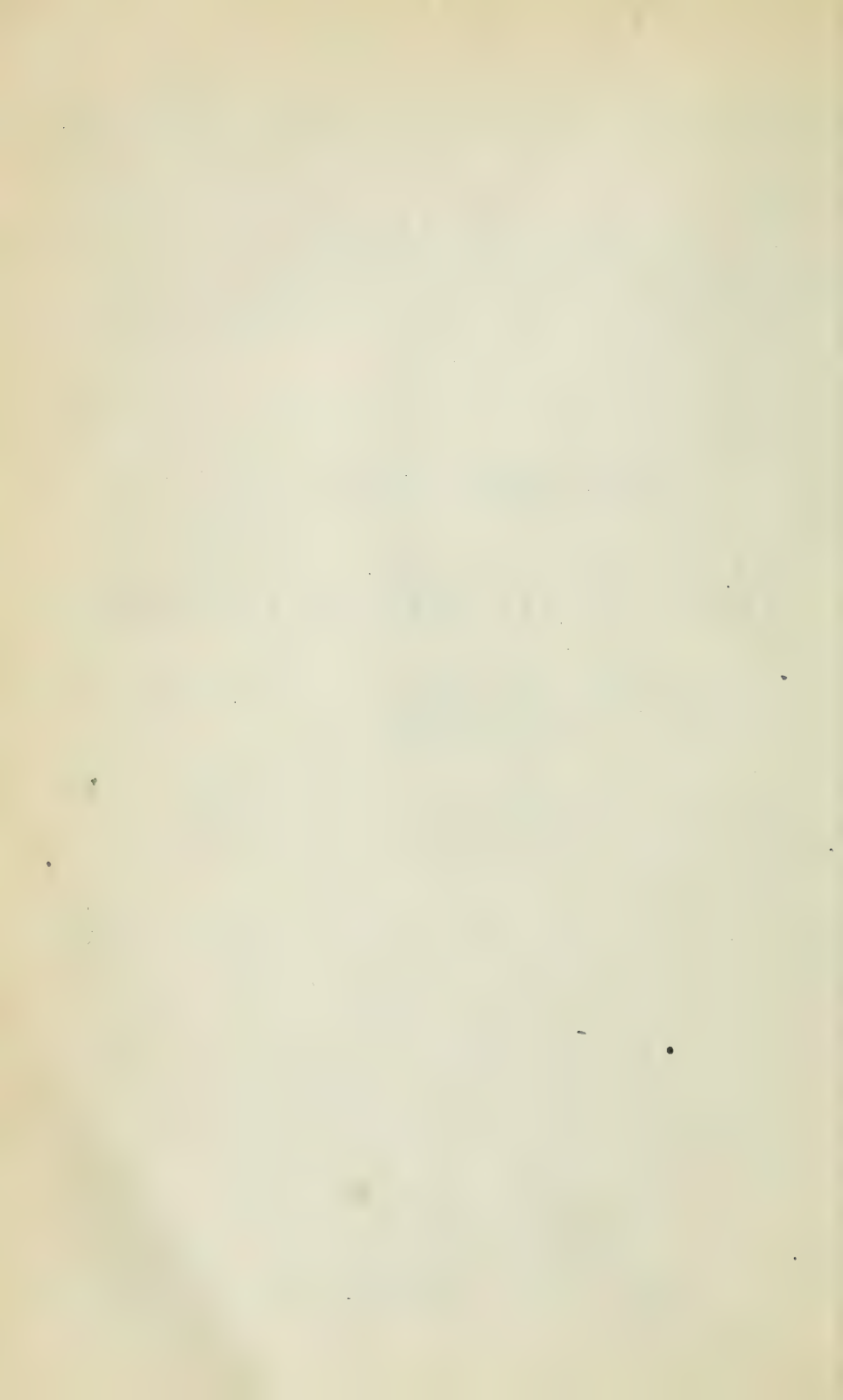
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FOURTH ANNUAL
STATE SANITARY CONVENTION,

HELD UNDER THE AUSPICES OF THE STATE
BOARD OF HEALTH,

AT LOS ANGELES, CALIFORNIA, APRIL 20, 1896.



FOURTH ANNUAL STATE SANITARY CONVENTION.

LOS ANGELES, April 20, 1896.

The convention was called to order by the President, Dr. C. W. Nutting.

REV. BURT ESTES HOWARD, of Los Angeles, delivered the following prayer:

"Our Father, we thank thee for the spirit of which this convention is an utterance; that spirit of earnest desire to make the world a better place for men and women to live in.

"We thank thee for the gospel of humanity; we thank thee for all these efforts being put forth to relieve the misery, and distress, and wrong, and pain of the world. We ask thy special blessing upon this gathering. Let there be here a keen insight, a depth of analysis and breadth of sympathy, and a nobility of purpose that shall be a stimulus to a larger and better work on the world itself.

"We ask in his name who was the Great Physician. Amen."

ADDRESS OF WELCOME.

HON. FRANK RADER, Mayor of Los Angeles, who was to have delivered an address of welcome, being out of the city, Dr. J. H. DAVISSON was introduced, and spoke as follows:

"*Mr. President and Gentlemen:* You are no doubt disappointed, as I am, at not having the Mayor with us this morning. He has evidently learned that he is liable to be dethroned this week by Her Royal Majesty, the Queen of La Fiesta de Los Angeles, and he has probably taken time by the forelock and taken to the tall timber for safety.

"I am somewhat reminded of Eli Perkins and his many occupations and professions when I appear before you, embarrassed as I am, in the place of our Mayor. Eli said that he had many accomplishments and many occupations, and he had recently been sitting for pictures—sitting as a subject for landscapes and various kinds of pictures; but he said that the most difficult and the most nasty thing he had undertaken to do was to sit to represent a whole drove of cattle. It is so with me, in undertaking to represent the Mayor of Los Angeles. I have no aspirations to do so, and in fact I shall not. I shall not undertake to represent the Mayor of Los Angeles; but I don't want you to make a misapplication of this incident of Perkins, that I have alluded to, and think that I am here to represent a whole drove of cattle. I am here to represent the angels, as this is the City of the Angels, as you are aware.

"I hope that your stay among us may be pleasant, and that you may incur the favor of Her Majesty the Queen, and that you may escape

the insults of the rioters of Comus, if you know who that is (I do not), and that you will escape being killed by the trolley cars or being run over by an oil wagon.

"I shall not undertake to represent the Mayor or even the City Government, but I am here simply as an humble citizen of this southern metropolis, and it affords me much pleasure, as one of the humble citizens of Los Angeles, to welcome you here on this occasion, hoping that you may see much in our city and vicinity to admire, and that you may leave us with pleasant memories of Los Angeles. On the part of the California State Board of Health I also extend to you a cordial welcome.

"It is my pleasure, inasmuch as we have been disappointed by our Mayor, and as I have not the ability to address you on this occasion, to call on one whom I know to be a speaker: the Reverend Dr. Burt Estes Howard."

DR. HOWARD: I suppose that Dr. Davisson thinks I am perfectly qualified to represent a whole drove of cattle or a stock-yard. I certainly cannot fill the Mayor's shoes; he has great difficulty sometimes in filling his own shoes. Yet, to add just a word to the welcome which Dr. Davisson has extended to you, I would welcome you in the name of brothers in a grand work for humanity; for I believe with all my soul that your ministry—for it is a ministry—is no whit less noble, less divine, or less ordained, than my own. These are days of large thought. These are days in which our conceptions of religion are expanded. We are not satisfied now with that definition of religion which is content with an attempt to save the souls of men out of a wrecked and devastated world into a frivolous and useless Heaven in another world, but we are gaining slowly and surely the broader idea that the true religion is the religion that strives to make this world a fit place for men to live in; that seeks to drive pain and distress and misery and everything that hurts and bruises out of this life in order that men may dwell together in peace and harmony as brethren. Fix this life, and the next life will take care of itself. And so this practical gospel, this practical ministry, is the ministry in which all of us are engaged when we truly understand life's mission and life's scope. And therefore I welcome you, not simply in a perfunctory association as members of a board of some kind or another, but I welcome you with the cordial right hand of fellowship as standing with me and my brethren, in an earnest and human and present effort for the uplifting of the race. I welcome you in a practical and in a hearty way, and wish the blessing of God upon your efforts. [Applause.]

ADDRESS OF PRESIDENT DR. C. W. NUTTING, OF ETNA.

Members of the Sanitary Convention, and Visitors: A year ago, at the meeting of the Third Sanitary Convention in the State of California, I was called to preside over your deliberations. At that time I indicated that, as had been the custom theretofore, it would be my pleasure, at the time of my retiring from the office, to say a few words to you. This I decided to do, simply because those who had preceded me in that office had set such a precedent; not because I felt that I could say anything

which would add in any way to your knowledge of sanitary affairs or to your pleasure while in the meeting.

And now I only desire, in a general way, to indicate some of the features that we desire to work out by these gatherings of physicians for the purpose of studying preventive measures for diseases. That, in my opinion, is the great aim and object of all regular physicians. It is well enough, of course, to be able to mitigate, in some degree, pain and suffering incidental to sickness. It is more noble, it is more attractive, to be able to prevent sickness. All over this broad land of ours medical men have for a long time been engaged in the elucidation of the causes that lead to a great many diseases, and as they have been enabled to find out those causes, they have, to a greater or less extent, been enabled to prevent some of these diseases; and I believe the time is coming when we will so thoroughly understand all the circumstances, and all the surroundings of these contagious diseases particularly, that, while we may not be able to entirely eradicate them from the experience of human life, we will be able to mitigate them, and we will be able to reduce their ravages to a minimum.

It takes long years of thought, long years of careful study, to understand thoroughly the history of any disease. It has been a good many years since Jenner accidentally discovered the principle of vaccination for the prevention of smallpox; and in that direction, it seems to me, in the direction laid down by him—and that field to-day is being thoroughly cultivated—we may perhaps find in those diseases where one attack prevents a future attack, we may perhaps find the solution of the prevention of that kind of disease.

We understand, no man, perhaps, better than physicians, that it is by slow and halting steps that we arrive at scientific conclusions. Many times we will be led astray by false lights; but after awhile the sober second thought of the profession will place on a proper basis all of these remedies that are suggested for its consideration.

There is one thing, and particularly, it seems to me, in the last few years, that has made physicians perhaps more skeptical than they naturally would be when any new remedy—and this refers particularly to curative measures—is presented for their consideration. More than once within the last five or six years have we been misled by statements from men high in scientific authority, and we have become incredulous; but after all, these are simply some of those halting steps by which we will finally arrive at the truth. After these propositions had properly come before the profession and had been properly weighed in the balance and found wanting to a great extent, it simply instigated us to greater efforts in working out these problems; and the profession all over the world is to-day engaged in these problems of sanitary preventive measures, which will ultimately redound to the great good of the people.

It sometimes seems strange to the laity that physicians should desire to prevent disease. They cannot understand that as a business proposition. They think that every physician feels just as the man does who runs a store or any other kind of financial business: that it would be to the interest of the profession were there more diseases and sickness. But, speaking from an experience of twenty years of practice, and from my experience in my association with a great number of physicians, I say candidly that it is the desire of every physician to limit, in so far

as possible, the ravages of these diseases. I don't think it is necessary for me to prolong my address. I again thank this convention for the honor it conferred upon me one year ago, and desire to predict that great good will result from the gathering together of physicians in sanitary conference from year to year in this State. [Applause.]

[Dr. J. H. Davisson takes the chair.]

THE CHAIRMAN: The next thing on the program is a response by Dr. W. F. McNutt, of San Francisco. I don't believe the Doctor is in the room. I am not sure that he is in town. We will pass that for the present.

ELECTION OF OFFICERS.

Dr. W. F. Wiard, of Sacramento, placed in nomination for President for the ensuing year, Dr. J. H. Davisson, of Los Angeles, and he was elected unanimously.

C. C. Wadsworth, of San Francisco, was elected Secretary pro tem. unanimously, the Secretary being absent.

P. C. Remondino, of San Diego, nominated and elected Vice-President unanimously; Thomas Ross, of Sacramento, elected Secretary; C. C. Wadsworth, of San Francisco, elected Second Vice-President, unanimously.

Drs. J. R. Laine, Thomas Ross, and W. F. Wiard, all of Sacramento, were appointed a Committee on Publication, the President announcing that they were all chosen from Sacramento for geographical reasons.

[Adjourned until 1:30 P. M.]

AFTERNOON SESSION.

THE PRESIDENT: Permit me to extend my thanks to the convention for the honor conferred in selecting me to preside over your deliberations for the ensuing year. I cannot convince myself that you again want to hear me make a speech, as you heard me, or some of you did, this morning, and I will not take your time. I shall endeavor, with your coöperation, to discharge the duties of this office without default. We will proceed with the program.

STREET-CLEANING AND DISPOSAL OF GARBAGE.

By H. S. ORME, M.D., of Los Angeles, Cal.

The subject of street-cleaning and proper disposal of garbage, etc., cannot attract too much attention. Especially are these matters important and interesting to those of us who are so fortunate as to live in the large and growing cities and towns of California.

We are all proud of our State, its climate, productions, etc., but to make it more and more appreciated, not only by our own citizens, but also by those who, living in less favored regions, visit us, we must have

the reputation—together with that of the best climate in the world—of having the cleanest and the most healthful, the most economically and best governed cities and towns of any State in the Union.

Our streets should be put in good repair and kept clean. That they can be kept clean we have no reason to doubt, for the great interest taken in sanitary matters the last few years, not only by the members of our own profession, but also by the general public, shows that the people are willing to carry out the principles of sanitation if they can be shown the necessity. In this world many persons will only do certain things from necessity—when they are forced to by law, or when they see a threatened epidemic and death confronting them.

In the cities and towns of the civilized world it is agreed that some method of removal of refuse, garbage, and excreta is imperative in all cases, but the means adopted varies with local conditions and notions of economy and efficiency. Sewered cities make use of water carriage for all matters which can be dissolved or suspended, while those without such works have to treat all on the same plan. In this paper I propose to deal with such matters as can be hauled from streets and premises.

Some cities contiguous to the sea (New York, for example) collect street-sweepings and household refuse and dump them at turn of tide into the lower bay. Others, as New Orleans did formerly, transport all refuse, including night soil, in barges below the city and dump it into the river. Some, like San Francisco, send human excreta into the bay through sewers, and other refuse to the dumps. Still others, like St. Louis, Milwaukee, Detroit, Fort Wayne, Indianapolis, Savannah, and Atlanta, destroy such matters by fire, including, in some cases, night soil and the largest dead animals, within inhabited limits, and without creating a nuisance. All the plans, except the last, are attended with great offense to the senses, and, doubtless, in many instances, with detriment to the public health.

Various patterns and patents for crematories have been devised. Some, like the Merz Universal Extractor, or the American Incinerating Company, as at Philadelphia, are designed to save products of value (principally fats from kitchen refuse); but it is often found impracticable to avoid objectionable stenches in these operations; besides, the apparatus is quite expensive, and the results in many cases would afford scarcely any profit. On the whole, the most satisfactory method is found in the simple and complete destruction by fire, without odor, of all combustible substances of this class.

The necessary expense of cremation is governed by several varying conditions:

1. The price of coal, which, unfortunately, is high in California, but probably crude petroleum can hereafter be substituted.
2. The kind of apparatus, for some furnaces require more fuel than others.
3. The nature of the matters to be consumed, night soil and large animals requiring most fuel.
4. Period of firing, the most effective plan being to keep up the fire day and night.
5. Length of haul.

* In California it is especially important to economize the consumption of coal by the best apparatus and continuous firing, but crude oil can and will be used in Los Angeles. In order to avoid long hauling, a

sufficient number of furnaces should be provided in cities, so as to be reached by a haul not exceeding two miles in length.

There is too much diversity in the method of gathering the refuse. In San Francisco, householders pay private parties a stipulated amount monthly to haul away the stuff. In Los Angeles, private contract runs for three years, which should be five. In some other cities and towns, public carts do the work at the expense of the corporation. In a few cities, the health department does the whole work at public expense, and it is generally agreed that this last plan is by far the most satisfactory, and, perhaps, as cheap as any effective one.

The following is the plan adopted at Atlanta, Georgia, which gives complete satisfaction: Every householder pays a tax of \$3 per year. All kinds of refuse, including night soil, are burned, and this is done so perfectly that no stench is perceptible. A horse's carcass is completely consumed in one hour and ten minutes. The apparatus there used is the "Dixon Crematory," the same pattern as the one now being erected in Los Angeles; not, however, owned by the city, but by the contractors, who are having it built at a cost of about \$10,000. The amount of matter consumed at Atlanta in one year (June, 1894, to June, 1895) was as follows:

Garbage burned.....	14,048,500 lbs.
Night soil.....	7,527,500 lbs.
Dead animals.....	192,476 lbs.
Total.....	21,768,476 lbs.

or, 10,884 $\frac{1}{4}$ tons.

This would give an average of a little less than thirty-five tons daily, excluding Sundays, consumed by three tons of soft coal or screenings, or nearly twelve tons of mixed refuse to the ton of coal. Three men (unskilled employes) sufficed to do the work.

In most cities and towns dead animals are gathered and disposed of, without charge to owners, by companies or individuals, who repay themselves by utilizing various products.

It will be observed that more than one third of the weight of matters consumed at Atlanta is night soil, and it is probable that more than half the cost is due to this wet substance, which would be otherwise disposed of in sewered cities.

A very large portion of town refuse consists of street-sweepings, consisting mainly of droppings of horses. With an effective plan of street-sweeping and a reasonable rate of transportation by rail or water, most of this matter ought to be used for fertilizing. A small part is now utilized by gardeners, who are willing to haul it for a short distance. It ought to be gathered, compressed, baled, and sent to the country, and will be in time; but, for the present, the best disposal for most of it is cremation. San Francisco and a number of other cities and towns in California still remain in the barbarism of dumps within the city limits, and near the dwellings of many poor people, and this custom must prevail until the political boss is retired from business. In Atlanta, the health department attends to all this work, and it is claimed that there is no politics in the business.

A few words are appropriate on the point of street-sweeping. Revolving brushes have been devised, which operate rapidly on smooth and unobstructed thoroughfares, but they never do thorough work; besides,

they can work only at night, when street traffic has almost or entirely ceased. These machines have been abandoned on the most important streets of San Francisco, and sweeping by hand through the day has been restored. No dirt piles are allowed to accumulate on these streets, and the metallic receptacles are emptied promptly into carts and the contents are hauled away to the dumps or given to any gardener who will take them. One or more crematories in San Francisco are now the one need to a satisfactory solution of the garbage problem.

In Oakland, the present system of disposing of the city's garbage is not satisfactory to the Board of Health or Health Officer. He informs me that the charge for removing one carload daily is \$122 50 per week, and then all is not taken out of the city. The crematory, so far, works satisfactorily, but a thorough test has never yet been made. It is a private plant, and no regular patent. The streets of Oakland, the Health Officer reports, are swept satisfactorily.

From the foregoing it will be seen that cremation is the proper method for disposal of garbage, and that our streets can and should be swept and kept clean.

Before closing this paper, for the information of many who are not familiar with the Dixon Garbage Crematory, I would state that there have been erected within the past three years, and in successful operation, seven Dixon Garbage Crematories in the United States. Several are under construction—one at Los Angeles, California, and I hope, soon, another at San Diego. A brief description of the Dixon Crematory is as follows:

The main part has a large furnace, about five feet deep and five feet wide (the whole length), into which garbage, night soil, dead animals, slops, etc., are emptied through large openings in the top, which, when opened, also receives a current of air, drawing into the furnace all stench from the garbage. The stuff falls on the grate-bars of the furnace, the fluids and finer garbage percolating through between the grate-bars into the lower furnace, or evaporating pan. Each of these has an independent fire, consuming all that comes in its way. The smoke, stench, and gases arising therefrom pass over the retaining walls and through an opening in the base of a fifty-foot stack, where the stench consumer is located. This is about three feet square, and is arranged with a "checker-work" of fine clay blocks, to be kept at a high heat by a small fire underneath, and by the extra or escaping heat from the other furnaces and burning gases, which entirely consumes all stench and gases coming from the process of cremation of the garbage, night soil, and dead animals—a regular "stench consumer." Also, on account of this arrangement, the temperature in the garbage furnaces can be kept quite low—say 600° to 800° Fahr.—thereby saving fuel and lengthening the life of the furnace. Some of the companies claim that they now use a fire in the stack, yet that will not prove a success with an open stack, and this idea of a checker-work or cross-sections in the base, to hold the heat and gases until consumed, is covered by the Dixon patents. You know that one can pass his hand through a flame of fire and not be burned, but when coming in contact with a very hot solid substance it must be burned.

Since the above was written, I am informed that several different plans have been tried at Philadelphia. The first was to dry and press the garbage into bricks, to be used as fuel. This proved a complete failure. Afterward they tried two different cremation furnaces, both of which

were unsatisfactory. I am not informed about the details of these furnaces nor the ground of dissatisfaction, but presume that they caused a stench. Finally, they tried the "Arnold System Improved." "The garbage is sterilized and pressed, producing grease and a dry fertilizer, for which there seems to be a ready market." No comparison between the value of the products and the cost of gathering and treating the refuse was given me. This plan is favorably spoken of by the Health Officer and by the Chief of Bureau of Street Cleaning.

In closing, I will call attention to a household garbage carbonizer or destroyer which has lately been devised in Massachusetts. In the joint of the pipe or elbow that makes the connection between the stove or range and the chimney flue is placed a horizontal cylinder or drum, somewhat larger than the stovepipe connections. One end of this cylinder is permanently closed, the other removable, and attached to the inside of this end is a basket or tray made of perforated iron, shorter and smaller than the cylinder itself. The area of space around this basket, when set in this cylinder, is larger than the area of the pipe from the stove or range, so that there can be no obstruction of the draught.

"When in use the basket is charged with the kitchen waste, returned to the cylinder into which the basket sets, by a locking device, and the heat from the fire passing around the scoop and through the perforations drives off the moisture in a short time, turning the contents into charcoal; this dried and charred waste is then put upon the fire and utilized as fuel." They are made of various sizes to suit the needs of families, and are said to create no stench. It is probable that this device may be found more economical and satisfactory, in many cities and towns, than any other disposal of kitchen refuse.

HON. ABBOT KINNEY, of Los Angeles, being called upon by the President to open the discussion, spoke as follows:

Mr. President, as a layman I hardly feel a right to open any remarks upon this interesting paper by Dr. Orme without expressing my appreciation, as one of the citizens of this republic, of the noble humanity and broad spirit of general utility and advantage to mankind that has been shown by the medical profession, in the study of medicine, to alleviate the sufferings of humanity. The medical men have, more than any others, gone into the prevention of disease, and have assisted in every municipality in this country, and, as far as I know, in other countries, in diminishing the amount of sickness and the causes of sickness, and I think that every layman should appreciate that and give it consideration, and I open my remarks with that statement of my feelings in the matter.

In this matter of city street-cleaning, Dr. Orme has touched upon one point, and merely touched upon it, and that is the abomination that we are subjected to by our unfortunate political methods. I have recently been reading the very valuable work of Mr. Albert Shaw, on Municipal Government on the continent of Europe. It is the second volume that he has published. The first one dealt with the municipal governments in Great Britain. I think that if there is anything that would make an American blush for his country and its institutions, it is the accounts that are given by Mr. Shaw of the methods which prevail in foreign cities. We find that our cities, as a rule, taking them as a class, are forty or fifty years behind the European cities in their sanitary methods.

I am really astonished to find the almost universal superiority of European cities, extending even from Budapest, in Hungary, clear through to the English cities, over our own. That is a condition of affairs which we ought to cure. I think that the medical men in this country, particularly some of those whom I have known in New York, have done a great deal in this line; and here we have Dr. Orme in Los Angeles, taking up the same subject.

Now, what can we do in that way? That is strictly a sanitary proposition. It is not merely sanitary methods, but it is actual, physical sanitary methods that are involved in this political system that we have here. We had, some twelve months ago, a citizens' committee appointed here to make a new charter. In investigating and going through that we found that Los Angeles was not worse governed than other American cities, but still indifferently governed. There was not that *esprit de corps*, that capacity shown in the specialties that ought to be found in every municipal government. As a result of those investigations, I suggest this to the gentlemen who are here, as the first practical step in reform; it is one that requires no new law. That is one of the great difficulties in almost all these methods that are proposed—that it requires a new law. This one does not. What I suggest, and what some of my friends have agreed to propose, is the working of all citizens for a civil service in all the minor or technical departments of the city. There is no law to prevent that, and no law is required or is absolutely necessary to insure it. We have here a public library that, some two or three years ago, was put upon the civil service plan—no tenure of office, but there was only one method for the rank and file to enter the library employment; that is to say, they pass a preliminary examination, upon which they become apprentices in this public library. Then they study for six months the library methods specially; at the end of that time they pass another examination, and if they pass that examination as specially fitted to manage a library, then they become eligible to office, and only in that way. In other words, no political service and no personal influence play any part. The result is that the library of this city has circulated more books per capita than any other library in this country. That shows that it is a just system, and all the public men who have been connected with it—and I have known quite a number of them—have expressed to me their satisfaction at the escape that that system gave them from the pressure of political and personal appointment. They were all satisfied, and glad to have it.

That brings up another point in this connection, as showing that it would not be so hard, perhaps, as it might be supposed, to get a civil service throughout the civil system; and that is this: that our system of political appointments really shortens the political life of the man who undertakes it. He can only appoint so many men, and for every one he appoints there are nine or ten who are disappointed, and he really thereby organizes a force that kills him at the next election. When you apply this to health matters—to street-cleaning and the inspection of foods—I think that any citizen of ordinary common sense would appreciate the great value, the great advantage, that would accrue to the city and to the service by having experts—men who, if they were not fitted for it at first, would be obliged to study as apprentices before they were appointed and salaried by the city. If you had a system of that kind for all your health inspectors and plumbing inspectors and others—that they had

to pass a technical examination in the particular line to which they aspired—you would gradually accumulate here a force of men who would understand thoroughly their business, and who would be fit to carry on these very delicate and important forms of municipal service.

The financial part of the health service in any community is immense. When you look through that book by Mr. Albert Shaw—and I certainly would recommend everybody who is interested in these matters to read that book—you will see what other cities have done. You take an epidemic, for instance, like that in Hamburg, of typhoid fever, and see what it cost that city and its business; how it drove the business and population away, and diminished the returns of the landlords and merchants and every one who had any business with the city. It is a thing of financial moment, even if we leave humanity out of consideration altogether; but when you take the next step, and look at the humanitarian aspect—the sick children and the sick people, and people who are disabled and prevented from doing their work and labor and become charges, more or less, upon the city—it gets a momentum which really makes the doctor and the sanitary congress the dominant feature of our interests in this country.

DR. C. A. RUGGLES, of Stockton: In the paper of Dr. Orme mention was made of the City of New Orleans, in regard to its garbage, as being transported in barges toward the ocean. I am not here to dispute that proposition, but I am here to say that from personal observation and full knowledge, derived from being on the spot, the City of New Orleans pays \$120,000 a year for the cremation of its garbage. New Orleans, as many know, is the dirtiest city in the United States, and is said to be the dirtiest in the world, except Constantinople. We all know from the formation of the City of New Orleans, that the subject of sewerage cannot be entertained at all; that is to say, in the same light that we look at it here. They have surface sewers. All the liquid portion of it that can be run off runs off in them. Their water-closets, the night soil, etc., as it is called, is kept and collected in hermetically sealed vaults, and is carried away by excavators whenever it is necessary. As I said before, New Orleans pays \$120,000 a year—\$10,000 a month—for the cremation of its garbage. It was my privilege, fourteen months ago, to be there, and I received, as one of the courtesies of the State Board of Health of Louisiana, the opportunity to examine that system of garbage cremation, and, unfortunate as they are, they certainly are trying to do the best thing they can. They have a series of tanks—in the first place, all the garbage is collected in wagons or carts; it is carried to a certain place, and then it is segregated, so to speak. The tin cans, and the bottles, and all those things, are taken apart and kept apart; then the others are put into a large tank, and then that is filled with naphtha, and after everything has been thoroughly soaked, so to speak, the naphtha uniting with all the oleaginous matter in that tank, a small degree of heat is applied to it, and the naphtha separates from the oleaginous matter; then next the burning process, and the dead dogs, horses, etc., all are burned into such shape that you could mash them together into a fine powder. The object of that, of course, is to separate the oil from the other substances, and that is saved and made, I presume, into cosmetics, or something else—soap, etc.—and all the rest is made into fertilizers and sold, so that the oily substance and the fertilizers almost pay the expenses of running the concern. But we must agree

with Dr. Orme in regard to one thing, and that is the necessity of the consumption by fire. There is no doubt about that.

DR. ORME: If the Doctor will allow me to interrupt him, I only stated that when I passed through New Orleans that was the custom. If I had received an answer to my letter I would have known that they cremated it. In some cities they do that. It is a wrong custom.

DR. RUGGLES: There is no doubt in regard to that point, and the only question is how it can be done the cheaper. They believe there that that is the best. I don't know whether it is or not. But I do know that a tax of \$120,000 put on to any city for garbage is tremendous to think about, and that the only point that I wish to emphasize, is the burning up of these things.

DR. ORME: I am very glad that Dr. Ruggles has informed me on that point. I only cited the different methods of disposing of garbage. When I went through New Orleans a good many years ago it was dumped; and in a great many other towns on the Mississippi River. If Dr. Ruggles read the transactions of the American Public Health Association, he will remember there was a paper there on "The Mississippi River, the Great Sewer," showing the probable effect of millions of tons of garbage that is thrown into the Mississippi River; that it is just a great sewer for all the towns on the river and its tributaries, the Ohio and others. It is a wrong system to put our garbage or sewage of any kind into our running streams, or even into our bays or ocean, as they did in San Diego formerly. I will make that correction in my paper. It seems that they have a crematory in New Orleans. It seems that they have an incineration or reduction process, the same as the process practiced in Philadelphia. In the proceedings of the Association it was said that the perfect crematory is yet to be invented. We hope that we have succeeded in getting one of the best in the United States, in the Dixon, here in Los Angeles. The garbage must be cremated.

YARD SANITATION.

By ALFRED E. REGENSBURGER, M.D., of San Francisco, Cal.*

Within late years there has been no end of essays on school, car, street, and every other kind of sanitation at every Sanitary Convention, but very little or nothing on yard hygiene. Why the yard has been treated in such a step-motherly fashion, and so ignored by sanitarians, is not in evidence. Yards were certainly intended for some use, and, being used, it goes without saying that their sanitation can not and should not be overlooked; and it is for the purpose of making some amends for the hereinbefore-mentioned shortcoming that this very short paper has been prepared, to which your kind attention is here directed.

We are careful, from an hygienic standpoint, as regards churches, schools, factories, cars, and boats, which are tenanted for a small part of every twenty-four hours, and other places serving only for a temporary and even for an occasional sojourn. Indeed, we do not stop here, but enact regulations, rules, laws, and ordinances concerning carts, vehicles, etc.,

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destined for the reception and transportation of garbage and other matters of an unhealthy and offensive character, so as to minimize and to rob them of any attaching danger, not to speak of the hygiene of dwellings. Then why not consider the yard? Is it an unnecessary or useless appendage or addition to a house? One would almost think so when one sees how it is done away with in many, if not in most, instances, in the more densely populated quarters of our larger cities.

Property is too dear in such localities, according to the owners' views, to waste on yards. Unfortunate, that sordid and mercenary motives should control a large part of the human race! The yard is the breathing-place, as it were, for the occupants tenanting the rooms fronting on it. A house without a yard is like a one-lunged individual. It can exist, and that is about all; or, more properly speaking, it should not be permitted to be.

Air and sunlight are great elements in convalescence. During the war of the Rebellion it was noticed that patients who were on the sunny side of hospitals made more rapid convalescence and were more times saved than those on the shady side. There is no room for doubt but that phthisis and other diseases are propagated and made worse by poor ventilation and vitiated air. No house can be properly ventilated and have the necessary amount of sunlight if it have not a rear yard.

Dr. Barry and Mr. Gordon Smith, in their report to the local-government board, demonstrated how, unmistakably, diarrhœa, phthisis, other lung and adynamic diseases prevail in back-to-back houses. This goes to prove that every dwelling should have a yard. Such at least is the prevailing opinion in most of the older and more settled countries. In England the government board makes provision in its by-laws that in every new building a space of one hundred and fifty superficial feet in the rear of dwellings must be kept free from any structure above ground, save closets and ash-bins. It is also prescribed that this space should extend the length of the building, and at no place must it be less than ten feet to the opposite structure. It is further ordained that, if the building be fifteen feet high, the minimum distance from one structure to the other must be not less than fifteen feet; if twenty-five feet high, not less than twenty feet, and if thirty-five feet and over, then not less than twenty-five feet.

The object of having a yard is to admit light and air to the rear part of the house, to aid in ventilating and in keeping in a salubrious and healthy condition the whole building, as well as to provide a playground for children, where they may inhale the fresh air and play and romp without being subjected to the dangers and evil influences of the street. Its atmosphere should be as pure and fresh as possible. It should have well-paved or cement walks, or be entirely covered by appropriate pavement; or, if there be room, and the owner's inclination be in that direction, it may be ornamented with flower-beds and shrubbery, lending a charm to the place. Its drainage should be as perfectly good as possible, so that no pools of stagnant water can collect or remain. It should, under no circumstances, be used as a dumping-ground for ashes, dirt, or refuse of any kind. Provision should be made for a properly constructed ash receptacle, and also for a separate swill-pail. The ash-pail should be constructed of metal—galvanized metal preferably—and have a cover of the same material, and so fashioned that the floor of the ash-pail does not reach to within a few inches above the ground, by its walls

extending that distance beyond its own flooring, so as to minimize the danger from fire if it happen to stand on a wooden pavement. It should be kept covered and be separate from the swill receptacle. The swill-pail should always be covered, and should be emptied and cleaned once in every twenty-four hours.

In cities, old-fashioned privy vaults should not be tolerated in yards, but water-closets of modern improved sanitary construction should be substituted for them. If a privy does exist it should not be nearer than six feet to a dwelling, and removed at least forty feet from a well. It is inconceivable that the old-style privies should be used in a modern city, but what can we say when a municipality like San Francisco has these abominations in some of its school-yards, as was the case at one of its schools recently closed for sanitary reasons by the Board of Health, where these death-dealing apologies for water-closets not only existed, but actually had no connection with the sewer, thereby endangering the health and lives of pupils and teachers, as well as being a menace to the entire surrounding houses, if situated in anything like close proximity to them? Not only should this school have been closed up, but also every school, or other private or public building, should be condemned unless supplied with proper water-closets.

Nearly every large city has ordinances on its statute books prohibiting or regulating the keeping of swine, cows, pigs, *et id omne genus*, within its limits. Those more advanced in sanitary affairs also have legal enactments precluding the turning of yards into poultry-houses. In the better residence districts the ordinances relating to the keeping of domestic animals are usually heeded, but when it comes to fowl they are more often honored in the breach than in the observance. We frequently find the yards turned from their legitimate uses and usurped as a stamping-ground by geese, ducks, chickens, and other members of the feathery tribe, kept solely for the edification of their owners, to the detriment of health, rest, peace, quiet, and comfort of the entire neighborhood. These yards and their inclosed poultry-pens are rarely kept as clean as they should and ought to be. No matter how clean they are kept, no matter what care is taken of them, emanations always arise from the bodies of these birds, from their decaying food and excreta, and if the yards wherein they are kept are small—as they are likely to be in nine out of ten cases in the residence portions of large cities—the place becomes foul in a double sense of the word. Malodorous evaporations loaded with disease-breeding germs coming from these coops or henneries find their way into the adjacent habitations, and are more frequently the cause of disease and death than is suspected.

It may be regarded as axiomatic that effluvia from decaying animal and vegetable matters and the germ-laden atmosphere from the emanations of animals generate and propagate disease.

Some medical gentlemen believe that to the close proximity of poultry to human habitations diphtheria can often be ascribed. An effort was made several years ago in San Francisco to draught an ordinance making it a misdemeanor to keep poultry within the city limits, for that very reason. Aside from the unsanitary condition which their presence induces and keeps up, the noises which they make during the nighttime are of a good deal of moment to those who are light sleepers, and to the sick and convalescent such noises frequently retard convalescence. Were any one to erect a factory running at night, or any rest-disturbing

machinery, in the residence part, which would occasion but one half the noise, the whole locality would be up in arms, and it would not be tolerated. Why these animals should have special rights to destroy the health and sleep of the denizens of whole neighborhoods is incomprehensible. Large cities nearly always enact and enforce laws regarding the maintenance of domestic animals within the city limits. Why should they not against this nuisance?

This evil has grown to such dimensions in San Francisco that it will require herculean efforts to strangle the hydra-headed monster. We should and must have clean yards, that if an epidemic ever strikes our shores and infests our fair State, we shall be in a position to meet and vanquish it. With dirty, poultry-infested, and unsanitary yards, we cannot hope to throttle it with any too great a degree of success.

DR. D. B. VAN SLYCK, of Pasadena: Mr. President and members of the Sanitary Convention, I don't think the paper requires any extended notice. The value of it is self-evident. The importance of air and sunlight in our houses, especially attention to the rear yards of houses, is a matter of a good deal of importance. In large cities, where tenements are built back to back without yards, it is well known that disease prevails to a much greater extent than in those cities where the houses are not so close together. In most of the large cities laws are being formulated and attempts are being made to prevent the building of any tenement houses of this sort. I approve fully everything set forth in the paper, and give it my entire commendation. Of course, in some of our smaller cities it is not a matter of so much importance, although it is always important that there be an abundance of room in the rear of the house, and that the yards should be kept clean. The health of every community depends, to a considerable extent, upon that, and I am very glad that a paper of this sort has been presented to our notice, to call our attention to it, because even in the smaller towns the back yards of houses are very greatly neglected, and they are often in an exceedingly unsanitary condition, and are a menace to the health of the neighborhood. I think that subject should be brought to the attention of the health officers, and back yards inspected as well as other portions of the town that seem to call for inspection.

DR. H. S. ORME, of Los Angeles: I indorse everything Dr. Van Slyck has said; and there is one point Dr. Regensburger mentioned in his paper, and that is the keeping of diseased chickens and fowl of any kind in the yards. As the Doctor says, the yards around houses should be just as clean as the front door-steps, or cleaner.

DR. P. C. REMONDINO, of San Diego: There is one point that I would like to call the attention of the convention to in regard to these matters, and that is that there should be a law to compel each community to appoint what is called a public scavenger, whose duty it should be to conduct away whatever fetid matter there is about any premises, when called upon to do so by any citizen. At San Diego the scavengering is done by a private company, and it only removes the material as often as it is paid for doing it. The result is that a poor family, who is unable—for instance, here is a poor family, and the husband is earning very little; it is impossible for him to pay the fees that are asked by this private scavenger, and the result is that he allows the filthy material to accumulate in his back yard and about his premises until

it is positively offensive to the whole neighborhood; and yet, at the same time, when a man is poor you cannot compel him to do it. There is no public scavenger to attend to it, and the private scavenger will not remove it unless he is paid; and the only way to remedy that is to compel each community to have a public scavenger. Our City Board of Health saw the evil that resulted from the private scavenger business, and we undertook to have the city employ scavengers, and have them clean up things periodically, or whenever called upon; but the private scavenger association moved in a body upon the City Council, and they defeated us, and the result is that now there are dead cats and everything else lying around some premises. This subject of Dr. Regensburger is a very important one, and one that should be attended to by the local Boards of Health.

DR. REGENSBURGER: Mr. President and Gentlemen, I don't know that I have much to say in the way of closing the discussion, because other gentlemen who have spoken seem to agree with the views that I have presented in my paper. I think there can be only two views concerning it. We all need clean yards, and the yards ought to be kept as clean as any other part of the dwelling. As regards keeping poultry in the rear yards, I think that ought to be prohibited, and it is a very important point. That poultry have caused diphtheria a great many medical men believe. What I had in mind, when I spoke of a law being draughted to cover that case, is that several years ago, in San Francisco, Dr. Keeney, who was then Health Officer, made an effort to have such a law enacted and put upon our statute books, but somehow or other it fell through and never was enacted. In the larger European cities, and in fact even in the smaller ones, the keeping of poultry in yards is forbidden by law; and if it is forbidden by law there, I think it should justly be forbidden by law in this country. The lives of people in our American cities are worth just as much as those in other cities. It is certainly an ill, and one which ought to be remedied, and I am glad to see that the gentlemen who have spoken are in accord with me. I thank you, gentlemen, for your attention.

THE SPORADIC DEVELOPMENT OF SMALLPOX.

THE PRESIDENT: In regard to the title of this paper, I would say that this was suggested to Dr. Goodfellow, the Territorial Health Officer of Arizona, with whom our State Board of Health has had a great deal to do in the last few years, owing to the fact of the spread of smallpox from Mexico into Arizona. As many of you know, there has been smallpox continually in Arizona for the last year, and it has been quite troublesome. It has been off in little isolated cañons; a case would develop here and a case there, and there has been constant supervision over it, and Dr. Goodfellow has rendered good service, not only to the Territory of Arizona, but also to California, by his energetic coöperation with us; and in conversation with him he suggested such a title for a paper to be read at this convention.

In the printing of this paper an error crept in which was not noticed. It should be "sporadic" instead of "spasmodic," as it is printed in the program. The title of it would suggest opposition to the usually

accepted views in regard to the contagiousness of smallpox, but that is not contemplated. Unfortunately, the Doctor is not here, neither is his paper. In view of the error in the printing, it is due from me to him to explain the error in the printing. We will pass this paper, and perhaps we will receive it later.

TYPHOID FEVER FROM A FINANCIAL STANDPOINT.

By THOMAS ROSS, M.D., of Sacramento, Cal.

It is truly said that the work of the sanitarian contributes largely to the welfare of mankind, to the health, the vigor, and the pecuniary advancement of individuals; that his work, on account of its being done gratuitously, is too often unappreciated by the people, who pay little or no attention to his instructions, even in the presence of epidemics.

Until a comparatively recent date, every epidemic, including those of typhoid fever—a disease from which we may gain immunity by the adoption and enforcement of proper sanitary measures—was considered to be a manifestation of Divine anger. Prayers and earnest supplications were publicly offered to the Almighty, imploring him to stay the pestilence, the presence of which was directly due to the people's ignorance of sanitary laws; to their filthiness, or, in more recent times, perhaps, to their parsimony. This superstition was strongest where medical or sanitary knowledge was most backward, and where disease most prevailed.

As wealth depends in great measure upon the energy and the regularity in which labor is conducted, and on the returns made to labor, it necessarily follows that its accumulation is difficult in communities whose sanitary condition is bad, exposing them to the dangers of a low vitality and enfeebled constitutions, which render them an easy prey to the encroachments of disease. Where health is precarious and disease prevalent, poverty abounds.

A community in the full enjoyment of health possesses the principal factor for the production of wealth, and emphasizes the truism that public health is public wealth.

That typhoid fever is a preventable disease; that it is caused by a specific germ, the bacillus of Eberth, and that the bacilli gain admission into the human body by drinking infected water, are now well demonstrated facts; therefore, it is of the greatest importance that all potable water be pure, and free from decomposing animal or vegetable substances, and from any contamination whatever. In fact, the use of contaminated water is of such serious concern to the individual, attacking his life, his health, and his purse, that he cannot afford to take the chances of sacrificing either, by the use of such water. Knowing the dangers to which he is exposed, he should exert his whole energy to see that he uses only pure water for drinking and domestic purposes.

Where the water-supply of a city is pure, there is seldom or never seen a case of typhoid fever that is not imported from some other less favored locality. It is truthfully stated, that the number of cases of this disease in a community is a true index to the sanitary condition of the locality.

As the mortality of typhoid fever differs in different epidemics, it is difficult to give statistics which are universally applicable. There is no

doubt whatever that the mortality has, in recent years, been greatly diminished, in consequence of the treatment now generally adopted, so that it may be as low as five or six per cent.

In Sacramento, with an estimated population of 30,000, the fatalities from typhoid fever for the year ending March 1, 1896, were six in number—a record that any city of equal population would have reason to be proud of. This low mortality is undoubtedly due to the fortunate circumstance that the source of the city's water-supply—the Sacramento River—was not infected, during the past year, by the germs of the disease. If, however, the water of the Sacramento River should become contaminated by the germs of the disease from the Folsom Prison, or from any of the towns situated above Sacramento City that discharge their sewage into the river, the presence of an epidemic of typhoid fever in Sacramento, the fatality of which cannot be foretold, is inevitable.

One hundred and twenty cases of typhoid fever have been reported to me by the individual physicians of the city, as having been treated by them within the city limits during the year ending March 1, 1896, which represents a mortality of five per cent.

We will not assume, however, that the rate of mortality that occurred in Sacramento during the past year represents the average death-rate from typhoid fever in this nation, but we will base our calculations on the usual average mortality of fifteen per cent.

I will endeavor to present for your consideration a computation showing the amount of money expended annually for the care and treatment of persons afflicted with this disease.

It is stated that in the United States, typhoid fever carries to an untimely grave fifty thousand people annually. Assuming this to be correct, and estimating the population of the United States to be 65,000,000, and reckoning the mortality to be fifteen per cent—which will readily be conceded to be a fair average mortality from this disease—we have six and two thirds cases for each death, and six and two thirds times fifty thousand gives us three hundred and thirty-three thousand three hundred and thirty-three, the number of persons in the United States who yearly contract typhoid fever, a preventable disease.

The cost of medical attendance, nursing, medicines, and loss of time may be computed as follows—the average duration of the disease, including convalescence, being estimated at eight weeks:

Loss of time in each case	\$100 00
For medical attendance in each case	175 00
For nursing in each case	100 00
For medicine, etc.	75 00
Average total cost	\$450 00

Recognizing the fact that many persons who contract this disease are unable to defray the necessary expenses of their sickness, and are treated in eleemosynary institutions, or are cared for by relatives or friends, we will make a liberal allowance for them, and estimate the average total cost for each individual sick of typhoid fever to be \$100, instead of \$450, which amounts to over \$33,333,000, the sum expended annually by the citizens of this nation for the care and treatment of those afflicted with a preventable disease.

The contemplation of the vital importance, and of the grand sanitary measures that could be perfected by the yearly expenditure of this

enormous sum of money for *protection* from this one preventable disease, instead of *for its cure*, affords an enticing field for deliberation, on which we have not time to enter.

DR. C. W. NUTTING, of Etna: Mr. President, and Gentlemen of the Convention, I have never taken the pains to investigate, from a financial standpoint, the immense cost, as stated in Dr. Ross's paper, that arises from three or four hundred thousand cases of typhoid fever. As I suggested this morning, in my address, it is for the purpose of preventing just such a waste of the energies of the people, and just such a waste of time, that these conventions meet all over the country to consider the subject of preventive medicine. No one would doubt, for an instant, that Dr. Ross has not exaggerated in his statement of the figures, and I believe that such papers as his will be more apt to appeal to the laity than other more pretentious papers, that simply deal scientifically with these subjects. The American is, like almost any other person in the world, natural, and if you want to stir him up to the depths and get away down into his feelings, you want to touch the nerve that runs to his pocket-book; and if you can demonstrate to him positively that it costs a whole lot less to put in motion these sanitary measures than it does to be sick, possibly we will succeed in bringing out the necessary coin to put them into effect. I indorse Dr. Ross's paper, and think that his method of presenting the subject is one that will have much more effect, perhaps, than papers that deal simply with measures from a scientific standpoint.

DR. J. MILTON WELCH, of Los Angeles: I did not come to say anything. I am a stranger in this country, having been here about two years; but having had some interest in sanitary measures, I thought that I would like to come down and see what kind of a meeting you had here. I am pleased to see a few of the people of California at this convention. There is one thought, which occurred to me during the reading of the paper, that it was remarkable that five per cent was the amount of cures of typhoid fever performed in Sacramento. In Kansas, where I came from, there was an old gentleman who had never made a special study of medicine, who had gone into the southern part of the State in an early day, and had concluded that he would get a good practice, and he took this plan to do it: Every case he saw in that country was typhoid fever, and in six or seven days he would have the patients up. He happened to be a pretty good doctor in that respect, from the simple fact that it is not much to hurt anybody—give them a little tea, or something of that kind—but he got all of his typhoid cases up in about six or seven days. The result was, that he was the doctor in that country, because anybody who could cure typhoid fever before other doctors could tell whether it was typhoid fever or not, hardly—sometimes it would be difficult, before six or seven days, to determine exactly whether it was typhoid fever or not; but he would have them up, and it was typhoid fever. The question occurred, in my mind, whether there might not have been in Sacramento some incorrect diagnosis of the number of cases they had in the city, and, consequently, if it were so it might result in bringing the percentage down. I think it was a remarkable percentage. But if you will allow me to say one thing about the impression I have as to the gathering you have. You have a nice gathering—three or four ladies and a dozen or two gentle-

men in a city of one hundred thousand! I was somewhat acquainted with sanitary matters in Kansas. I was a member of the State Board of Health eight years; and we had sanitary conventions, and at each convention, in the several years during which I was a member, I think we never had a convention that we could not or did not fill a room very nearly full. People seemed to take an interest. Now, what I expected when I came down this morning, was to see this house full. In a city like this, it seemed to me, that the people ought to take enough interest in sanitary matters, especially where they are getting in sewers and fixing the city up, as a recommendation for others to come in it, that they ought to take some more interest than just a few. It would discourage me, if I were a member of the State Board of Health of this State, to see only a few persons present. It seems to me, that if we were to have a convention here to discuss horses, fine blood, fine stock, fine chickens, or anything of that kind, we would have this house full. But it seems to me to be strange that this house is not filled when it comes to sanitary matters, and especially when we have our children and our friends. Is it that California is banking on the climate? It seems to me so. Where the flowers rise like an exhalation in this climate, and people are reposing in the belief that they have no need to give attention to sanitary matters—this is the very place where sanitary measures ought to interest everybody, and ought to bring everybody out to a convention of this kind. Support the State Board of Health. Support it in all lawful and just means of promoting health matters in the State. In Kansas, we used to get the Governor, and we used to get the Supreme Court Judges and others interested in our affairs. We got them there. We had them make speeches or read papers, and prominent men all over the State, wherever we had a convention, we got them there, and we brought a crowd, and the people supported the State Board of Health in Kansas. So we had, after a year or two, one of the finest interests taken in the State Board of Health and sanitary matters that I have heard of in any State. I don't wish to be understood as criticising, because I could not criticise a crowd or a number of ladies and gentlemen who come out to a sanitary convention, but I cannot help noticing the want of interest in this State in these matters.

DR. J. R. LAINE, of Sacramento: I will say, with reference to the criticism that has been made of the few who turn out to conventions, that these proceedings are printed at the expense of the State, and the well-digested papers that are presented before a body of this kind, simply receive the indorsement of the convention at the time, and are then printed and distributed to the medical profession, and to the press throughout the State. In that way they reach a large number. In one evening a man may go through the transactions of a meeting of this kind that has lasted through an entire day, perhaps, under some inconveniences, by sitting with his cigar in his mouth or his feet before a grate, and he assents to or dissents from the discussions and sentiments that have been expressed. There is very little good done in this world by ephemeral exuberance of, you may say, rhetoric, or the results of oratory. We calmly act upon anything that we do in a sanitary way in deliberative bodies. So far as the State Board is concerned, it has very generally received all the support that it has deserved. Its actions have been characterized, so far as I know, by great deliberation. Everything has been very well weighed before any official action has been

taken. It has not been compelled, to my knowledge, to reverse its decisions or its action. This is an extraordinary occasion. Though I am not a resident of Los Angeles, yet I see very plainly that a great many people are attracted by the festivities that are in contemplation and in process at the present time. So far as I am personally concerned, I do not regard it as any slight to the State Board of Health, or to any medical gentlemen present, that there is not a larger attendance. The transactions will be printed, and will have a wide distribution, and I can assure you that, so far as I have been able to make comparisons, the papers that have been presented to the sanitary conventions heretofore compare favorably with those of any other State in the Union, and are complimented very highly, and have been sent for, and are being sent for many years after their publication. There is not a month that we do not mail perhaps forty or fifty, and sometimes two hundred copies, and we frequently have to say that we have no more copies, that they are out of print. That is the way it goes, and that is the way that good is done. Our State sends to other States for publications, and we digest matters and let it do as much good as it can.

DR. WELCH: I am not practicing now. I simply came here for my health. I did not mean any criticism at all; I did not think of it. The only thing that occurred to me was the want of interest in the matters. It is true that these publications are sent out through the country, and that in a measure modifies the remarks that I made.

HON. ABBOT KINNEY, of Los Angeles: I would like to correct the Doctor in one respect. When he said he was from Los Angeles, I felt it absolutely necessary for me to say something in regard to one of his statements. He made the statement that he was a stranger in this community, and that he had resided here for two years. That is a complete mistake. We don't recognize any statement of that sort.

DR. WELCH: The gentleman has not come from Kansas.

THE PRESIDENT: I would take the liberty of saying that I don't think Dr. Welch's statements were misunderstood. We don't take it that they gave any offense. Personally, I think they are all right.

DR. LAINE: Dr. Ross failed, purposely perhaps, to make an estimate of what it cost when a man died. It would largely increase the cost of the sum total.

THE PRESIDENT: That would depend largely upon where he dies, I suppose.

DR. ROSS: The expense of a man's death is inevitable. If he dies prematurely of typhoid fever, it is only the case sooner than it otherwise would, and that is the reason I left funeral expenses out. Talking about funeral expenses, I think that some action ought to be taken to correct an impression among the people about funerals. How often do we see a poor widow, for instance, whose finances have been exhausted by the expenses of the attendance upon a sick child or a sick husband, and when death comes in the family and the funeral expenses come along, how often do we see that poor woman incur an expenditure that it takes her a whole year or more to pay, in order to bury her relative decently, as it were. The idea I want to get at is that the expense of funerals is out of all proportion; it is money thrown away, and it is a great load on a great number of people. The wealthy can indulge in those luxuries, but the poor try to keep up and do all they can for the dead, and they incur an indebtedness that it is hard for them to pay.

It is a false notion. If we could do anything to correct that false notion, we would be doing good.

I have not much to say on this paper. I tried to make it practical, and to use few or no technicalities; to make it a paper that would impress the laity, or anybody who might read it, with the importance of using measures of prevention in all diseases that are preventable, rather than to take no measure at all or to use no action to adopt sanitary measures that would prevent the disease altogether; rather than to let disease go on and use money for its cure.

DR. P. C. REMONDINO, of San Diego: I wish to say something, not in reference to this paper, but in reference to a remark that the doctor made in his closing remarks on a subject foreign to the paper, yet a socialistic question which interests us all; and that is the expense of funerals. There is a canton in Switzerland where everybody is buried alike, rich or poor, and the State pays the expense of the whole thing. Unfortunately, with us there is as much rivalry as to the size and pomp of a funeral as there is at a party, which is all wrong. It would be better if we could have some system by which we could all be buried alike or cremated.

FACILITIES FOR THE TREATMENT OF CONTAGIOUS AND INFECTIOUS DISEASES IN THE PUBLIC INSTI- TUTIONS OF CALIFORNIA.

THE PRESIDENT: I received a paper and a letter from Dr. Osborne regretting that at the last moment the press of business at his institution necessitated his remaining at home, and that it would be impossible for him to be here, a pleasure that he had been looking forward to, as he is a man of ability and one who takes a lively interest in these things. He has prepared a very interesting paper, and I don't know but it would be well to read it or have it read. What is the pleasure of the convention?

DR. C. A. RUGGLES, of Stockton: I will state, in regard to this paper, that I am familiar with its history, its inception and conception, and with the reasons why the Doctor is not here.

Last January, in the discharge of its official duties, the State Board of Health visited the Glen Ellen institution, the Home for the Feeble-Minded. We made a very thorough inspection of the institution, and we found one deplorable condition of things, which was the existence of thirty-five cases of tuberculosis, scattered hither and yon all over the institution, without any idea of isolation or segregation. The Board immediately and thoroughly and positively condemned any such condition of things. We were struck almost aback with astonishment to find among four hundred patients thirty-five cases of communicable disease. The Superintendent of the institution immediately fell in with the proposition that something must be done. If the State desired to get rid of those four hundred, it was not doing a more successful act than allowing those thirty-five children with tuberculosis to remain where they were. But it could not be done with the approval of the State Board of Health. We communicated with Dr. Osborne in relation to the matter, and I, being familiar with some of the members of the Board of Directors and somewhat acquainted with our Governor, it is

determined and understood positively and unequivocally that next month there will be a separate ward constituted. A separate corps of attendants will wait upon those thirty-five children, and they never will be allowed to associate with the other three hundred and fifty. The gentleman, unfortunately, is not able to be here. I am very sorry, indeed, because I am satisfied his is a very good paper. Therefore, if there be no one to read the paper in his stead, I move that it be read by title and referred to the Committee on Publication.

(Motion seconded and carried.)

Following is the paper prepared by Antrim Edgar Osborne, M.D., Ph.D., Superintendent California Home for the Care and Training of Feeble-Minded Children, Eldridge, Cal.:

The following public institutions in California have cost the State, for land, buildings, water and light plants, furnishings, etc., up to August 1, 1895, the following sums set opposite their names:*

Insane Asylums—At Napa	\$1,726,435 04	
At Stockton	1,108,500 00	
At Agnews	812,614 99	
At San Bernardino	556,000 00	
At Ukiah	812,614 00	
Total		\$5,016,164 03
Reformatories—At Whittier	\$419,435 14	
At Lone	316,591 20	
Total		736,026 34
State Prisons—At Folsom	\$747,183 72	
At San Quentin	1,085,247 68	
Total		1,832,431 40
Institution for Deaf, Dumb, and Blind, at Berkeley		446,620 00
Home for Adult Blind, at Oakland		54,873 60
Veterans' Home, at Yountville		166,421 00
Home for Feeble-Minded, at Eldridge		463,718 81
Grand total		\$8,716,255 81

Besides the additional yearly cost for maintaining patients in these institutions†, for which the sum of \$1,391,126 70 was appropriated for the year ending June 30, 1896, the State paid in 1894, for the support of orphans, half-orphans, foundlings, etc, as follows:

To various Orphan Asylums, for 4,582 persons	\$284,533 20
To County Hospitals, for 19 persons	537 44
To outside aid, for 909 persons	30,380 70

Making a total of 5,510 persons thus cared for, at an expense to the State of.. \$315,451 34

* See State Blue Book for 1895.

† Veterans' Home	\$45,000 00
Whittier State School	100,000 00
Preston School of Industry	50,000 00
Stockton Insane Asylum	202,500 00
Napa Insane Asylum	200,000 00
Agnews Insane Asylum	181,000 00
San Bernardino Insane Asylum	58,400 00
Mendocino Insane Asylum	72,500 00
Deaf, Dumb, and Blind Institution	59,650 00
Home for Adult Blind	25,000 00
Home for Feeble-Minded	70,000 00
San Quentin State Prison	147,576 70
Folsom State Prison	109,500 00
Transportation of patients and prisoners	70,000 00

Total

\$1,391,126 70

It is to be presumed that when the State takes up a line of public charity, philanthropy, or expedient care, and commits itself, by lavish appropriations, to sustain its position in such matters, it will be found, as a consequence, that the means employed, being the resources of the commonwealth, will be wisely directed to procure in every detail a service practically above criticism. I say this is the rational presumption; it finds its popular expression in the oft-repeated assertion, "that whatever the State undertakes to do, it can afford to do well." To ascertain how well the State had made provision against contagious disorders in the various institutions in California, I recently made inquiries of the various managements. The replies courteously forwarded are, in the main, submitted herewith, and will be found, I think, exceedingly suggestive to a body such as this. No replies were received to my request from either Napa or Agnews Insane Asylums.

INTERROGATORY ONE.—"What facilities does your institution possess for the treatment of contagious or infectious diseases?"

Replies: Stockton Insane Asylum—"We have no facilities for the treatment of contagious or infectious diseases. The invalid ward of the Asylum, situated over the associated dining-rooms, and completely isolated from the buildings, would be the ward we would use for the present, in case of an epidemic here. Being on the second floor, it is, of course, not very convenient."

San Bernardino Insane Asylum—"We have no special facilities for the treatment of such cases; neither have we any buildings available for such cases."

Mendocino Asylum for Insane—"No means of secluding contagious disorders."

Whittier State School—"We have a pesthouse, situated away from the other buildings. It consists of one good, large, well-ventilated room."

Ione State School—"None whatever. At the mercy of any disease which may endanger health."

Folsom State Prison—"We have no hospital, separate and distinct, for any particular line of disease."

San Quentin State Prison—"We have no especial facilities for the treatment of contagious or infectious disorders, further than the hospital proper, which has accommodations for about forty-five patients."

Institution for Deaf, Dumb, and Blind—"This institution possesses no facilities for the treatment of contagious or infectious diseases."

Home for the Adult Blind—"Facilities for treating contagious or infectious diseases very crude. No separate hospital building."

Veterans' Home, Yountville—"No separate building has been set apart for such purposes. Should a contagious disease develop in our Home, we could treat by isolation by occupying a separate building that is now used for company quarters."

INTERROGATORY TWO.—"Have you a hospital building available for cases referred to above? If so, describe fully the uses to which it is put, giving outline plan and accommodations afforded."

Replies: Stockton Insane Asylum—"No; answered above."

San Bernardino Asylum—"Have no buildings available for such cases."

Mendocino Asylum—"No buildings available for such cases."

Whittier State School—"Our hospital consists of a ward situated on fourth floor of the main building, and will accommodate about twenty patients."

Ione State School—"Have no quarters available for such cases."

Folsom State Prison—"We have a hospital building for general use in the prison. It is large, well ventilated, and kept very neat. We have the usual hospital accommodations."

San Quentin Prison—"Answered above."

Institution for Deaf, Dumb, and Blind—"We have no hospital, but hope to have, one of these days."

Home for Adult Blind—"No separate hospital building."

Veterans' Home—"We have one general hospital of two hundred and fifty beds. The upper story is divided into a large dormitory, nicely fitted up with all the modern appliances, well ventilated, furnished with the latest style of plumbing, patent water-closets and urinals, stationary porcelain bathtubs, etc. The lower story is divided into wards."

INTERROGATORY THREE.—"About what per cent of your patients are consumptives?"

Replies: Stockton Asylum—"Not over one per cent. There are ten cases of pulmonary consumption in the male department; one case which is doubtful, and one case of tubercular joint trouble. In the female department there is but one case of pulmonary consumption and two cases of glandular disease, suspected of being of a tubercular nature."

San Bernardino Asylum—"The number of consumptives committed to this institution does not exceed five per cent."

Mendocino Asylum—"Since we opened this asylum (December 12, 1893) we have had but four deaths from consumption, and we have but one case in the asylum at the present writing (March 11, 1896)."

Whittier State School—No data.

Ione State School—"Have no data; but do not think it is over two per cent. We have but one well-defined case at present (March 10, 1896)."

San Quentin Prison—"Of the deaths (19) for the year ending June 30, 1893, ten were from pulmonary consumption; per cent, 58.82; population, 1,216. Same statistics for 1894 give total deaths, 37; population, 1,307; deaths from consumption, 13; per cent, 38.23. Same for 1895: population, 1,278; total number of deaths, 28; from pulmonary consumption, 11; per cent, 47.82. Average for the three years above gives a percentage of 45.94 of pulmonary consumption."

Deaf, Dumb, and Blind Institution—"No consumption."

Home for Adult Blind—"In ten years six cases of consumption out of a total of two hundred admitted; three per cent."

Veterans' Home—"No data. Percentage thought to be light."

INTERROGATORY FOUR.—"Have you facilities for the isolation of consumptives as a class? Do you isolate consumptives?"

Replies: Stockton Asylum—"The facilities which we have for isolating consumptives are faulty; still we isolate them to the best of our ability. With the exception of one case, I think all the consumptives of my department," writes Dr. Hoisholt, "are in one ward. Having so

few cases of consumption, we cannot isolate them as we would wish, nor keep them from actual contact."

San Bernardino Asylum—"We have no facilities for the isolation of consumptives as a class, except a small room in the attic, where, during the cooler months, we are able to keep a case or two."

Mendocino Asylum—"Have no means of isolating cases of consumption."

Whittier State School—"Do not admit consumptives to the institution. Have probably twelve inmates who have weak lungs, who would develop pulmonary consumption if given the proper conditions. They are not isolated."

Ione State School—"No facilities for separate care of consumptives. Present case is kept in the open air as much as possible, and mingles with the others only when a necessity exists."

Folsom Prison—"No special quarters for the isolation of consumptives. Would isolate if we had facilities."

San Quentin Prison—"No facilities for the isolation of consumptives."

Institution for Deaf, Dumb, and Blind—"No facilities for the isolation of consumptives."

Home for Adult Blind—"Now preparing a sunny, well-ventilated room for the exclusive use of consumptives, but do not seclude entirely. Have but one case on hand now (March 13, 1896)."

Veterans' Home—"As far as possible, consumptives are kept apart by themselves. During pleasant weather they are placed in comfortable, wheeled chairs and taken out in the open air."

INTERROGATORY FIVE.—"What is your opinion as to the effect upon the health and mortality of your other patients, of allowing consumptives to mingle in the general wards?"

Replies: Stockton Asylum—Dr. Hoisholt reports: "I cannot say that I have ever traced any case of infection by contact."

San Bernardino Asylum—Dr. Campbell reports: "During my eleven years' service as physician to the Illinois State Penitentiary, situated at Joliet (average population, 1,500), I had ample opportunity to study this question. In at least four of my biennial reports I drew the attention of the authorities to the unfortunate results from the unavoidable necessity of having so large a population confined to so small an area, and the disastrous effects resulting from the commingling of consumptives with the non-consumptives. During my years of service there was a steady increase in the percentage of consumptives—not owing to new commitments, but to its propagation among those already confined. The fact was as striking and convincing as it was deplorable. With our present knowledge of tubercular consumption, it seems to me there can be but one opinion regarding its contagiousness and the disastrous results of the mingling of consumptives with other patients. There have been three deaths from consumption in this institution since it opened (August 11, 1893), but a number of others have been removed by their friends that they might care for them at home during their last days. Population of the institution at present writing (March 16, 1896), 435."

Mendocino Asylum—Dr. King writes: "There ought to be provision made in all large hospitals to separate persons afflicted with contagious diseases from other patients, and the same is true outside of hospitals as well as inside. Number of deaths since opening of institution, 60; deaths from consumption, 5; population (March 10, 1896), 322."

Whittier State School—Pronouncedly in favor of the isolation of consumptives as a class.

Ione State School—Superintendent Bank considers it very unwise and prejudicial to the interests of the other children to allow unlimited freedom to consumptives. They have had but two deaths since the opening of the school—neither from tubercular trouble. Present population, 187. The management contemplates having passed an amendment to their law regulating admissions, to the purpose "that no boy of unsound mind, or who is afflicted with epilepsy, St. Vitus dance, or any contagious or infectious disease, shall be committed to the school." This would bar consumptives.

Folsom State Prison—Dr. C. L. Browning states: "From my general experience it is not a good idea for consumptives to remain in the same wards with other patients, or with other people. In my opinion, consumptives should be isolated, if it is possible. In Folsom Prison we have an institution that is different from most other institutions, from the fact that we have plenty of help, plenty of cleansing material and cleansing fluids, plenty of paint and whitewash, and for these reasons the wards of this prison are at least as clean, or cleaner, than any other institution in the United States. There is hardly a crack on the inside of the institution, or in the walls, but what is thoroughly cleaned out every day, and disinfected, and for this reason I would say that the mingling of consumptives in the general wards of the prison has no untoward effect upon the health of the other prisoners. Folsom Prison, up to within the last few years, had the name of being rather a sickly prison, and prisoners have tried to avoid it as much as possible, but we have dissipated that idea. In fact, we have got one of the healthiest prisons in the United States to-day, and we are taking particular care in keeping it as clean and healthy as possible. The health of the prison in 1896 has been better than it has been for the past three years. We have had very few deaths, and very little sickness outside of malaria. For the fiscal year 1893-94, with an average population of 690, there were reported six deaths, one of which was from pulmonary consumption. For the fiscal year 1894-95, with an average population of 792, there were nine deaths, five of which were from pulmonary consumption."

San Quentin State Prison—Dr. Lawler states: "In my opinion, it is advisable in the extreme to prevent the mingling of consumptives with other patients. Number of inmates (March 14, 1896), 1,261."

Deaf, Dumb, and Blind Institution—"Have had no deaths in two years. Present enrollment, 214 pupils." Professor Wilkinson expresses no opinion regarding the danger of letting consumptives mingle with other children.

Home for Adult Blind—Dr. Fine advises the keeping of consumptives to themselves, as far as possible, and the use of all possible means to prevent the indiscriminate scattering of sputum. Deaths for the past ten years, 15, six of which were from consumption. For the same period, 200 were admitted. Population March 13, 1896, consisted of 95 inmates.

Veterans' Home—Medical Director McAllister favors isolation of consumptives, especially of the more advanced cases. Total number of inmates, March 13, 1896, 641. Number of deaths for the year ending June 30, 1895, 35.

When the above-referred-to questions were sent out, I felt that it would be found that the Home for Feeble-Minded possessed fewer and poorer facilities for the treatment of contagious diseases than any other institution in the State. It would appear, on the contrary, from the answers given, that it is neither materially better nor worse off than the rest of them. At Eldridge we have, practically, no facilities for the treatment of these diseases by seclusion or isolation. We have, as the above infers, no hospital building, nor yet wards that might be devoted to hospital work. The different departments of the Home are overcrowded to a degree that well demonstrates the inferiority of the present style of State institution buildings and extension over the cottage system of care. The sick are necessarily cared for in their own beds, wherever these may happen to be, with, of course, such extra attentions to privacy as a screen around the bed, or some such appliances, can secure in the dormitories.

A very large percentage of our patients, particularly those admitted during the past two years, are of the lower grades mentally and physically. Coupled to their mental defect, sometimes as the cause, sometimes as the complicating concomitant, are the commoner hereditary constitutional disorders. Out of an inmate population of 440, we have at least ten per cent suffering from pulmonary consumption in some stage or another, or exhibiting tubercular, glandular, and scrofulous infection. During the past ten years of my management of this institution, I have seen this percentage rise from less than one per cent to its present rather alarming figure. As the Home grew, the influx of patients outgrew their quarters, thus producing an unfortunate overcrowding, with all its attendant evil results to health. The admission of a few cases of pronounced consumptives did the work for us. Lacking the barest requisites for their rational hospital care; handicapped in more ways than I would like to disclose in a paper such as this, I have been compelled to be an unwilling witness to the manifest dangers involved in the unrestricted commingling of these consumptives with our other and healthier patients. To a student, the field has been most fertile of results and rich in clinical demonstrations. I have had demonstrated to my entire satisfaction—yea, to my unspeakable distress and sorrow—the contagiousness of consumption under such circumstances.

I believe these dangers constitute a standing menace in all our public institutions. I cannot believe that there is less danger from the intermingling of consumptives with the insane, the criminal, or other classes than with the feeble-minded.

At Eldridge we are moving to have erected separate cottages for the care and treatment and comfortable isolation of consumptives. I have long advocated this plan, but unfortunate delays have interfered with its realization. Briefly, it seems to be the only thing for us or any other institution to do; with us, just now, it seems to be the imperative thing.

Investigation into some thirty orphan asylums of all denominations in the State, drawing State aid to the extent of \$284,533 20, in 1894, and caring for 4,582 children, shows a little better condition of affairs on the whole than the above record for our public institutions in these matters. The orphan asylums under the charge of the Roman Catholic Church, particularly, appear to have been better provided for along these lines, and are being managed with stricter attention to these

details. The proposition stands, however, that where the State appropriates such vast sums of public money for the care and treatment of dependents, delinquents, and defectives, any gross disregard of true sanitary conditions is almost criminal neglect, and calls for immediate remedial attention.

The object of this paper is simply to call attention to the above enumerated facts, the consideration of the proper steps to be taken in the matter being left to others. The writer cannot resist the temptation to seize upon the opportunity thus afforded him, however, to again declare his belief in the wisdom of building our institutions on the colony plan, and of providing comparatively inexpensive cottages for inmate care, as against the idea of the expenditure of millions upon architectural monstrosities, as has heretofore prevailed, and which rarely, if ever, possess the interior facilities which the class of patients they are designed to shelter, of right demand.

IMPERATIVE NEED OF STRICT SANITARY REGULATIONS AGAINST THE SPREAD OF CONSUMPTION IN SOUTHERN CALIFORNIA.

By P. C. REMONDINO, M.D., of San Diego, Cal.

If we accept the belief in the infectious or contagious nature of tubercular consumption, we must also accept the belief that Southern California requires a more strict code of sanitary regulations, as well as a better understanding concerning the nature of the disease in question, than it has heretofore enjoyed. If the prevalence and spread of the disease are to be checked or circumscribed, it will only be through such means as are usually taken to effect the suppression of other contagious or infectious diseases. Public education, and the demands that the result of a better education of the public will create, will tend greatly to assist matters; but to do all that is required, in the light of the present knowledge of modes of infection, and of the preventive measures adequate for its prevention, will necessitate something more than the mere education of the masses. This will only be accomplished by the enactment and enforcement of strict regulations.

These regulations need not, of necessity, work any additional hardships on the already afflicted invalid, as they should only contain such provisions as would naturally suggest themselves to the intelligent invalid, whose consideration for the welfare of others would not permit him, consciously or unconsciously, to become the center or a source of infection, or a careless disseminator of the disease. There is, however, unfortunately, a very large class who, either through ignorance or an unpardonable hostility to all that is sensible, persist in causing the public to run unnecessary risks to the infection. It will certainly not be a hardship on the part of those afflicted to be obliged to do that which common sense dictates as practicable and not burdensome to their more intelligent and considerate fellow invalids; nor will it be an exercise of cruelty or of persecution that the State should compel those who are careless and inconsiderate to observe such regulations as are best intended for the protection of the well.

Such regulations should be observed by all consumptives afflicted with tuberculosis. The danger is by no means limited to those in the

most advanced stages of the disease, although it is from the latter class that is obtained the greatest degree of infectious material. The history of the New England skipper who infected three successive wives who died of consumption, while he himself seemed not apparently to suffer from tuberculosis, but who was subsequently found to have been suffering from the disease for many years previous, is also a lesson that should make us reflect. All pulmonary diseases are not, however, tuberculous; neither are all cases of emaciation necessarily tuberculous affections. The sifting apart of these different cases will require much unprejudiced discrimination and care, as well as the exercise of all our judgment; but, through it all, we should never overlook our duty to the well as sanitarians and as practitioners of preventive medicine, nor should we lose sight of that thoughtful humanity which the condition of the invalid demands that we should exercise.

Southern California, more than any other locality, has been sought as a health resort by the pulmonary invalid. Unfortunately, the rationale of climatic therapeutics is not understood by the laity at large, who should understand that climate should be used more in a prophylactic than in a curative sense; in other words, that it should be used rather to prevent the development of the disease in its incipency or tendency, than—as it is in the great majority of instances—as a hopeless curative agent. Many patients carry the latter delusion to such a stretch as actually to leave their Eastern homes in a moribund condition, while their lungs are in the very last stages of decay. Some of these are so far moribund that they die on the cars or at some roadside station long before reaching these shores; others come here merely to die within a week or a few months after their arrival. In some of these cases the disease has affected the intestines as well as the lungs, and such are, from their condition, the most active and fruitful sources of infection. The Southern California climates cannot help these, unless it be that the milder and more equable climate, as well as the cooler nights, tend to make their last days more passable and their ending less painful than it would be in their Eastern homes. But we cannot shut our eyes to the fact that, in our careless ways of treating these invalids, at least as far as concerns the protection of others, and in a preventive sense, it is from these that comes the greatest danger to our pullmans, our steamers, our hotels, and to our boarding or lodging houses, as well as to many private families, who, ignorant of the requisite preventive measures for their own protection, as well as totally ignorant of the infectiousness of the disease, take in invalid boarders or lodgers.

The ignorance exhibited by the laity in these regards is very apparent from the great number of Eastern consumptives who come to these shores expecting to dwell with their friends, when it is patent that did they but recognize the true infectious nature of their illness, they would be the last to cause the exposure of those whom they love. I have more than once been called to assist an intelligent family from the presence of one of these undesirable visitors, as the family fully realized all the risks that the presence of the invalid caused them to incur. It is hard to appear unfriendly or heartless to the poor invalid; but harder still is it for the one who fully realizes all the possible dangers, when called upon needlessly to expose his own family to the infection of tuberculosis.

From the above outlined description of the nature of the sources of the infection of tuberculosis, it will be seen that, to be effectual, it will not

be sufficient to make our regulations fit our cities or our towns and villages—we must make our regulations cover the whole region, and they must extend so as to cover even the railroads and other avenues of travel.

Consumption is a far more fatal disease to humanity than is smallpox, but somehow, from the fact of its often slow progress, and from the further fact that persons afflicted with the disease are often able to attend to business, to travel, and, in a measure, to enjoy life, we fail to grasp the full danger to the well that surrounds the presence of the consumptive. Were a smallpox patient to be seen sitting in a waiting-room, the whole building would soon be vacated; but persons will not only breathe the air respired by the consumptive, but also will drink out of the same glass or cup at the water-cooler, wipe on the same towel at the towel-rack, and eat with the same hastily wiped knives, spoons, and forks at the restaurant, just as if the tuberculous bacillus was as far distant as the slaughtering Turks in far-off Armenia. This is not as it should be. Either tuberculosis is an unimportant and uninfectious disease, or it is an infectious and slowly invading, but surely fatal, disease, and one that is easily communicated through its germs. We all well know that the latter of the two conditions is the true state of the disease, and our shiftless and careless actions, in the light of the great spread of the disease, are not in the least creditable to our intelligence, considering the positive teachings of science.

What can we do and what should we do to protect the well and prevent the spread of the disease? It goes without saying, that what can be done should be well and thoroughly done, and that in enforcing our well-digested regulations in this regard, we will not only protect the well and prevent the spread of infectiousness in the future, but also we even assist and increase the chances for the recovery of the ailing, as these, after a partial recovery, often fall victims themselves to the results of a secondary or a tertiary infection. It is therefore as much to the interest of the incipient consumptive, and of still more interest to the possessor of that unfortunate constitution which simply inherits a *tendency* to consumption, as it is to those who are well and possess strong stamina, that something should be done.

Of late years, and since the ravages of the grippe, many previously well and healthy persons have had their health and stamina so undermined that they have become easy culture-fields for the lodgment and propagation of the bacillus of tuberculosis. The deteriorating effect upon these constitutions, through repeated attacks of the grippe, has made of many as so many well-spaded, well-manured, and well-watered garden-beds, where the seeds have but to fall to at once germinate. Southern California—as well as Middle and Northern California, and on that our sectional interests are identical—is now peopled by many such, who have found that a longer residence on the Atlantic coast or in the valleys of the Western rivers, or on the shores of our great lakes, meant a speedy breakdown, a life of impaired or of stopped usefulness, and probably a speedy ending. Hence, our population with a *tendency* to consumption has of late years largely increased, and is still more largely on the increase. It is that class, did they but know the dangers that threaten them, who should strenuously demand protection—not a protection against foreign immigration, nor protection of the McKinley order as against foreign manufactures or foreign pauper importations, but a protection against consumption for their enfeebled

health and powers of resistance. That class should fully understand what this means to them, and they should as fully realize what a lessened resistance means. They should understand that, while they have minimized their chances of a further breakdown, or of falling victims to consumption, these chances have only comparatively been lessened but not wholly removed, and that the desiccated and pulverized sputa of the consumptive may, in a certain degree, be as deadly to them here as in their old home, and that they should not take any chance as to the degree that is required to infect them.

As suggested, our preventive measures should begin with the railroad trains when they cross the State line—beyond that our Legislature or our Boards of Health cannot exercise any authority. As lately suggested by some of our progressive Eastern railroad surgeons and sanitarians, consumptives should travel in cars specially constructed for their accommodation. The furniture of these cars, and their general arrangement, should be such as would permit a thorough steaming and fumigation at the end of each single journey. The closets of these cars should be so constructed that before emptying their contents upon the roadway, or near the station platforms, the contents of the pan could be thoroughly asepticized by an efficient bichloride solution. The cuspidors of these cars should be of the most approved sanitary pattern, and cleansed and disinfected often. The bedding of these cars should be disinfected at the end of each single journey, and it, and what rugs are used in the cars, should not be used until the next trip; but, after steaming, they should be well aired for some days. These cars should be supplied with an especially trained service. By these means the regular temperature of the car, and everything that pertains to the health and comfort of the invalids, would be better attended to, and the thorough disinfection of all discharges, cuspidors, etc., would be better assured. No towels, bedding, or other furnishings serving in these cars should be permitted to become mingled, either in the laundry or in a store-room, with those that belong to the other class of cars.

Hotels should not, as at present, indiscriminately take in and lodge the consumptive. The rooms occupied by these should be easy to disinfect, and hotels should in these regards and in every particular follow the suggestions made concerning railroad cars. Some consumptives are but too often viciously and criminally careless, and at times even seem to take a grim delight in doing that which is obnoxious and disgusting as well as dangerous to others. We have seen such, spitting small lakes of sputa on sidewalks or on hotel porches, or on the cover of a cuspidor, so as to be able to inspect it themselves. Flies light on the outskirts or borders of these little lakes and convey the infectious germs to the fruit-stalls, markets, kitchens, dining-rooms, and dwellings. The most rigid and well-enforced regulations should cover that phase of the subject. Consumptives should carry with them the wherewith to expectorate into, and when this is saturated, full, or at the earliest convenience, it should be burned. A small rubber or oiled silk cloth pouch, and small, square pieces of cheese cloth, form an admirable receptacle and a supply of receivers that can be carried in the pocket. Under no pretext whatever should a consumptive be permitted to expectorate on a street, or station or hotel floor, or anywhere else, except in a receptacle that can be burned or otherwise thoroughly disinfected.

In this respect too much cannot be said condemnatorily of the popular

conception of the range and power of some advertised disinfectants to destroy the germs of disease and remove dangers or infection. Too much dependence is placed in a slight spray or a high dilution of carbolic acid, which only serves to blind us to the real danger and lull us into fancied security. Boiling water, superheated steam, and an efficient solution of corrosive sublimate are the only real destructives of the bacillus. A rag or a sponge dipped in carbolized water or in any of the ready-made disinfecting solutions, are hence of no earthly avail. The laity should understand this better, and not be lulled into a fancied but dangerous security. Such means cannot even sicken a tubercular germ, to say nothing of destroying it; and the laity should fully and well realize that the proper and only safeguard is prevention of the pollution or the infection of the soil, streets, walks, houses, and furnishings, rather than to have to depend on their subsequent disinfection.

In consideration of the observations made upon the breath of consumptives, upon graveyard soils in which deceased consumptives have been for years buried, and upon the clinging tenacity of the germ infection to walls, floors, and furniture, which tell us that the germ is often found in the expired air, that it will exist indefinitely in soils, and that the dust on walls has been found impregnated with the bacillus, it is very evident that our efforts should be complete and radical, and that our quarantine supervision should not cease with the death of the individual. Cremation of the dead is hence a sure safeguard, and to be recommended. The saturation of the body with a bichloride solution is also an efficient preventive. Walls wherein a consumptive has lived should be well sponged with a strong bichloride solution, which should also be applied to the floor of the apartment. Other articles can be steamed at the carpet and furniture cleaner's, where moths and other germs are destroyed by steam; or if the articles are boilable, they can be treated at home.

Consumptives should not allow a pet cat or dog to caress them, or to eat the remains of their food. Animals owned and living with consumptives should not be allowed to wander about and be petted by children.

Hotels harboring consumptives, especially those in the advanced stage of the disease, should never, in sending meals to their rooms, send up sugar, salt, pepper, nor any other article of food or of condiment, especially milk and butter, which may find its way back to the general pantry and be in some shape or other served up to others. We have seen this dangerous procedure take place more than once, where a consumptive has dipped a spoon directly from his mouth into a teacupful of sugar or into a small individual sugar-bowl, or dipped salt out of a salt-cellar with the end of his knife—the salt in the receptacle being afterward emptied in a common lot from whence the cellars were all to be refilled. Too much care cannot be exercised in this direction.

The greatest of cares naturally centers upon the disposition of the sputa. The common practice of promiscuously spitting should be strictly prohibited. Persons in all stages of health and with every variety of disease spit at random over the floors of public halls—especially is this the case at political meetings and conventions—to desiccate, become pulverized, and be sent up in atomized clouds of infectious dust during the uproarious applause that often is the accompaniment of such public reunions. Were I a life insurance company director, I should certainly see to it that the proverbially steady convention attendant, who makes it his occupation to be a standing delegate to all

things, should be classed as an extra hazardous risk. In such a place the sputa deposited upon the floor become more than dangerous, owing to the great stamping of feet, which fills the air with a dust of almost unrespirable thickness. In all such assemblages the most approved pattern of cuspidors should be used, and all of our public places should be well supplied with easily disinfected cuspidors. An intelligent sense of self-preservation should abolish the wild and uproarious stamping of feet and the barbaric pounding upon the floor with the ends of our canes. Some more civilized system of exhibiting our approval should be inaugurated.

There is a prevailing idea that sawdust or soil is sufficiently disinfecting, and that sputum deposited upon the ground is speedily rendered inert. This is all fallacious, at least as far as tuberculosis is concerned, and the consumptive who goes about expectorating upon garden-beds is simply placing his bacilli where they will the best hold on to life and be made capable of future mischief.

The breezes from off the Pacific Ocean are more or less charged with that ozone which is destructive to bacillary life, and the bright, warm sun of the southerly latitudes of our State is equally inimical to its existence; but to make these two agents effective the sputum must be so placed that it will remain freely exposed to their action until it is rendered completely inert. To obtain this result, however, the sputum must not be exposed to being blown about into shady and protected places. From these reasons, sputum deposited in the sunniest and windiest part will in the end become dangerous by some of its particles being blown where the vitality of the bacillus may be indefinitely preserved.

A very injurious practice prevalent in Southern California is the habit of taking in "roomers," regardless of the nature of their physical condition. While, in the main, that is a most Christian and unselfish act, and at times even most profitable, it is but too often the initial point from whence the family of the owner of the house or home begin their journey as a race of consumptives. I have known, not only of instances where very desperate cases were taken in, but also of cases where they were made as one of the family. This is all wrong, and while it is a most Christian act, the father or head of a family has no moral right thus to jeopardize the future physical welfare of his innocent family. If the reckless colonization of consumptives continues under the lack of understanding of the subject, and the utterly as reckless disregard of all hygienic regulations or laws, not only will our coast become a dangerous habitation for the invalid whose disease is only that he has a *tendency* to the disease, but also it will, in time, become an exceedingly dangerous habitation for the well who are born here, and who have no hereditary tendencies to consumption. The reports from many of the health resorts on the northern Mediterranean shores warn us but too well of our impending fate, unless we take proper precautions. By the enactment and enforcement of proper measures, we not only protect ourselves, but also make the chances of the existing invalid better, and the sooner we recognize the fact that the air of every locality that is a health resort cannot of itself destroy all disease germs, the better it will be for all concerned. The preservation and existence of the germs will, in a degree, lead to the development of the disease here as well as elsewhere, and the great congregation of those afflicted with the malady will, in the end, so saturate many of our homes and public

places with the germs of the disease that, in the language of the ritual, there will be no further health in us.

With great carelessness, it is not in the least unreasonable to entertain the opinion that the disease may assume, under favoring conditions, an endemic as well as an epidemic form. No degree of pleasing optimism will do away with that unwelcome condition or result. It therefore behooves us to take the most prosaic view of the subject, and, without going to the lengths which many extremists would advise, we can do much in circumscribing the spread of the disease by guarding against infection. To do that we must not overlook the fact that we must do more than to simply guard against from person-to-person infection, as, however much of the existing prevalence of the disease may be due to direct infection, the greater number of cases undoubtedly become so from infected rooms with their germ-infected furnishings, as well as from dust infection on streets, in travel, or through the food, while in an inceptive state of the system. We must most carefully and assiduously, as well as constantly, guard against the infection of our soil, of our walls, floors, furnishings, books, bedding, and general household utensils. To that end we must, first of all, possess some means of enforcing the most complete preventive measures on our various lines of travel. Next, the hotels and boarding and lodging houses should come under like supervision. In hospitals the consumptives should be kept apart from the rest of the inmates. Surgical cases are prone to the infection if operated upon or confined in rooms or wards that have been occupied by consumptives. Then, in the end, the heads of families wherein a member is a consumptive, should be taught the necessity and benefit of all possible precautions in protecting the rest of the family.

The best manner of accomplishing the desired preventive measures should be the subject for study by our local and State legislative bodies. The necessary details will suggest themselves, as well as the manner in which the regulations should be enforced. Much depends upon the differing intelligence of the afflicted themselves, as well as upon that of the community wherein they reside.

DR. WALTER LINDLEY, of Los Angeles: Mr. President, Ladies and Gentlemen, I am not at all prepared to speak to the subject, not having arrived until the Doctor was pretty well through his paper. I believe in kindness, and while we take every precaution and insist on what the Doctor speaks of there, I believe at the same time in treating the man or woman who is suffering with a terrible malady with as much consideration as possible, and insinuating as little against his lack of human kindness as possible. I believe that if our literature were written in the manner of argument, and not in the manner of denunciation, it will reach these consumptives so that they will readily join with us in trying to eradicate the disease. I believe that this disease will be eradicated by the steps which the Doctor suggests, but, at the same time, let us season our arguments and our literature with as much consideration for the unfortunate as we possibly can.

DR. W. F. WIARD, of Sacramento: I listened with a great deal of interest to the very able paper of Dr. Remondino, and I indorse everything the Doctor has said, the remarks which have been construed by Dr. Lindley as a little harsh and cruel included. I want to say what I have said before all the meetings of this society, that all the kindness

in the world will never accomplish anything. I shall never take a tuberculous into my family under any circumstances whatever, because I consider my family's good health of more importance than any consumptive's necessarily brief existence. Furthermore, I do not believe in allowing—and here I think the strong arm of the law should be brought into requisition—I do not believe in allowing teachers in our public schools who are afflicted with tuberculosis to retain their positions, or to be allowed to teach there one day after it is understood that the disease is well developed. I do not believe that a preacher should be allowed to preach and associate with his parishioners, as he necessarily must, if he is afflicted with this disease. I do not believe that it should be allowed by our State. I do not believe that the coming here of medical men who are broken down with consumption, and practicing and associating with the people, as they necessarily must, should be allowed. Their work must necessarily go in the direction of broken-down constitutions, of people who, by heredity and association with others, are in poor health and extremely liable to take consumption—to be infected by these germs. It seems as though it was an immense wrong for us to allow these things to go on. We know that in all probability the man who drinks whisky is going to, ultimately, and in a very few years, become disabled by it, and we make laws to regulate the sale of that. Now is it any more out of our jurisdiction, is there anything more wrong about it, to regulate this disease and control it? Shall not we say to these men who are in these vocations where they are necessarily associated with a great many men—isn't it proper that we should say to these men, "You must get out of there; you are exposing this community to a very fatal contagion; we don't want you in there; let somebody else do that work who is not afflicted with disease"? It seems to me this is a plain proposition, and I sincerely hope that ultimately we will have laws which will regulate these things. Kindness won't do it. I believe my heart is just as tender as that of the majority of practitioners, and I feel sorry for these people who are afflicted; it is deplorable, but I tell you they have got to stand aside and let somebody else with good health do this work, or we will do an injustice to our community.

DR. J. R. LAINE, of Sacramento: I do not expect to enlighten any one by stating the manner in which the infection will take place. It is generally understood, I believe, that a person may live in intimate relationship with another one who is suffering from tuberculosis and yet not contract the disease from him, unless he furnishes the soil which receives it, so that it may develop, by breathing bacilli in a dry state, as dry sputum. There are other methods also, particularly among cattle. Cattle that are suffering from tuberculosis have two ways of spreading the disease: one from coughing on the feed and grasses that other cattle graze and feed upon; the other, by the excreta from the bowels, provided the disease exists in the alimentary canal. This, when it becomes dry, becomes scattered over the feed, and may reach the respiratory lining of other animals, or may infect them through the stomach. I do not believe that people often contract the disease from others through the food. Children, at the time they are cutting teeth, or at the time they are suffering from some abrasion of the lining of the mouth, if they are nursing or drinking tuberculous milk, may receive it in that way. The glands about the neck may become enlarged and suppurate and swell, and that bacilli may extend down to the apex of the lungs, and reach

the lungs in that way. Then again, as stated by the writer of the paper, a patient may be suffering from a small area of affected tissue, and by swallowing expectoration may infect the alimentary canal; or again, by respiring his own bacilli, that have been dried, he may infect a portion of the opposite lung, and so carry it on indefinitely. I am not a believer in the easy communicability of tuberculosis by breathing respirations of other persons. It is true that by coughing we create an expulsive effort, which, by acting as an atomizer, may expel a portion of sputum containing bacilli; but you must see that that is not easily inhaled by another person until it has become dried, comminuted, and scattered about as dust. It is far more dangerous to live in a room that has been occupied by a consumptive patient. There the carpets, or even the floors, if denuded of carpets, or the walls, or the furniture, will have a fine dust from the particles of sputum that has not been cared for, and that, when stirred about, may produce the same effect that people sometimes get when cleaning the paper off the walls of a room in which a patient had smallpox years before. They then wonder where they got smallpox, and they cannot understand that the bacillus has been retained all this time in some secluded spot, and has become displaced, and thus produced the contagion.

I would take the same position with reference to the school teacher that is taken by Dr. Wiard. I don't think we ought to have school teachers who are known to be afflicted with consumption taking care of our young. Putting aside the fact that they may not convey the disease by direct contagion, they must dispose of their sputa, and that sputa will become dry. There is a possibility, there is a grave probability, that the sputum may be dangerous to the young. That being so, let it be once admitted that that is so, we should not have them as teachers, no matter how much sorrow we may feel for their unfortunate condition. The love that we have for the young ones should overcome these sentimental considerations.

With reference to the clergyman, he stands in the same condition that almost any other man will. If he can care for his sputum I have no objection to listening to his exhortations.

How far the physician may continue his practice in the advanced stage of the disease is a matter that should be partly left to him and partly to those who advise him. I believe that generally physicians take the advice of everybody else but doctors.

ABBOT KINNEY, of Los Angeles: The only consolation in this very serious presentation of the subject—one consolation that Dr. Remondino has given some of us at least—is that there is a prospect for the extermination of politicians who attend conventions.

DR. J. R. LAINE: They have so much of the antidote in them that it don't hurt them.

DR. REMONDINO: With reference to the remarks of my friend Dr. Lindley, I must say that that is a point that has presented itself to me more than once, and very sadly. There are very few of us but have friends in that predicament, that are consumptives, and really if there is anything in the world that makes us wish there was a Utopia, that Utopia was something practical, that it was not a mere theory, it is that we have a consumptive friend and we don't know what to advise him to do or what shall be done with him. There is many a poor fellow who becomes consumptive, and if you go to work and shut off his means of

earning a livelihood, what shall he do? Is he to go to the poorhouse? You must give him some means, under our system of civilization (which does not provide for him), of making a living. For instance, here is a girl raised in refinement, belonging to a good family; she is refined in sentiment and feelings. That poor girl, through her attendance at the State Normal School, where she has aimed to become a teacher, through her assiduous occupation and confinement becomes consumptive. Are you going to tell that girl, "You are consumptive; you can't teach in our schools, but you must go to the poorhouse"? She may have no place to go; she may have no relatives to provide for her. These thoughts have often come to me, and I have often felt that the State ought to provide for such persons. In regard to teachers, it is not alone the disease that they may communicate to the children—and children will receive the infection much quicker than grown people—but here is a danger that I have seen more than once; I have seen in San Diego, where many of our teachers were consumptives, these teachers are thin-blooded and frigid, sensitive to the cold, and they are afraid of draughts, afraid of ventilation, like all consumptives. I have seen these teachers sit by and have a roaring fire in a room, and insist on having the windows closed and the doors closed, so that actually when a well man would come into that room it would make him sick; and I have seen children come home vomiting and sick from being confined in such an atmosphere. Whenever a teacher gets in that condition that she cannot stand a ventilated room any longer, she ought not be allowed to teach school.

Another thing: We are either right or wrong in saying that the bacillus will propagate the disease. Some take the ground that the bacillus is merely a concomitant of the disease, and some say that the presence of the bacillus in the lung is merely a secondary result of the trouble. Be that as it may, we know that it will infect persons.

And another thing: You talk about a person being well, and another being not quite so well being more subject to the infection; but we must all admit that you can take the healthiest person in the world, and let him have a sore in his mouth, and let a bacillus of a consumptive light on that sore, and it will impregnate his system. It will start a focus from which colonies will propagate in his system. The same way about a strong, healthy man being in no danger by eating food upon which some of these bacilli have been deposited. It may be true as long as there is no abrasion, but the slightest abrasion gives a point of entrance, and we cannot be too careful in that respect.

COLORADO DESERT AS A SANITARIUM.

DR. M. F. PRICE, of Indio: When I was asked to write a paper and gave this as a title, I was out on the desert away from home, away from every book of reference I had or could procure, and there was a very short space of time between that time and the meeting of this convention. While I commenced to write the paper, I have not been able to finish it in such a shape as to present it to this meeting. Therefore, I will have to be excused unless you will accept it by title and allow me to present it to the Committee on Publication.

[On motion of Dr. Regensburger, the Doctor's request was complied with. The paper is as follows:]

In the discussion of the possibilities of any locality or region of country as a sanitarium, the principal item to consider is naturally the climate. "It is almost an universal practice to measure the influence of a climate by the relation which different regions and localities hold to pulmonary consumption—a disease which, probably more than any other, depends upon preventable conditions intimately associated with a foul soil or density of population." (Bell.) What I may say on the subject in hand will follow this line of reasoning.

All writers agree in recommending the climatic treatment of consumption as the most important element in the care of those afflicted with the disease; but there is, perhaps, no climate to which consumptives can be sent indiscriminately. Some patients feel better in cold weather, but the large majority are better in summer and in a warm climate. "In the advanced stage of the disease, patients, *if sent anywhere*, should be recommended to a warm climate, and usually to a comparatively low altitude." (Ingals.) "The requirements of a suitable climate are a *pure atmosphere*, an *equable temperature* not subject to rapid variations, and a *maximum amount of sunshine*." (Osler.) A patient should live out of doors as much as possible under the "wonderful influence of the sun, the source of everything that is good in climate." Neither the cough, the fever, nor the hemoptysis contraindicate this. "Good climate is all out of doors." This question is of the very first importance in the treatment of tuberculosis. "It is illustrated in an interesting and practical way by the experiments of Trudeau, showing that inoculated rabbits, confined in a dark, damp place, rapidly succumb, while others, allowed to run wild, either recover or show slight lesions. It is the same in human tuberculosis. A patient confined to the house is in a position analogous to the rabbit confined to a hutch in the cellar; whereas, a patient living in the fresh air and sunshine has chances comparable to those of the rabbit running wild." (Osler.) An atmosphere as nearly devoid of moisture as possible is of great importance. This does not so much depend on the amount of rainfall as on the dryness of the soil. "The atmosphere of a region with a loose, porous, sandy soil, through which the water filters, and whose surface dries quickly, is never damp; but hard, compact, rocky, or clayey regions, that drain but slowly and imperfectly, hold the moisture, and cause a dampness which is a strong predisposing cause of phthisis." (Loomis.)

The foregoing is but a brief epitome of what has been written on the climatic treatment of pulmonary tuberculosis and with which all are familiar. With this preface I pass to the consideration of the climate of the Colorado Desert, which, I think, meets the requirements hinted at above more nearly than any other of which I am cognizant. This desert is situated in the counties of Riverside and San Diego, California, between the Coast Range of mountains and the Colorado River, and is below the level of the sea 300 feet at the lowest point.

The atmosphere of this desert is almost perfectly dry, the relative humidity being low throughout the whole year—15% to 50%. Dr. Dennison says "an actually small amount of atmospheric moisture is the most important element in the best climate for phthisis." He formulates the relative humidity as follows:

For excessive dryness	.....40%
For moderate dryness	.....40 to 60%
For moderate moisture	.....60 to 80%
For excessive moisture	.....80% and over.

Humboldt's table gives—

Very dry	under 55%
Moderately dry	55 to 75%
Moderately damp	75 to 85%
Very damp	over 85%

Relative humidity is the amount of moisture in the air relative to what it could contain, the maximum being 100%.

The mean temperature and relative humidity at Indio for the first three months of 1896 were as follows:

	January.	February.	March.
Maximum temperature	80°	89°	95°
Minimum temperature	29°	31°	40°
Mean temperature	53°	68°	67°
Relative humidity	42%	33%	41%

I have not had access to any records except for the three months named. For the remaining nine months Dr. Walter Lindley reports the following for 1893: In April, the lowest was 50°, and the highest 100°. In May, the lowest was 60°, and the highest 105°. In June, the lowest was 70°, and the highest 111°. In July, the lowest was 75°, and the highest 116°. In August, the lowest was 78°, and the highest 116°. In September, the lowest was 70°, and the highest 113°. In October, the lowest was 50°, and the highest 102°. In November, the lowest was 30°, and the highest 90°. In December, the lowest was 30°, and the highest 80°.

The following table, showing the monthly means of dry and wet thermometers for 1895, is kindly furnished me by Mr. A. Ashenberger, Observer Weather Bureau, at Yuma, Ariz.:

1895.	Thermometer.			
	Dry. 5 A. M.	Wet. 5 A. M.	Dry. 5 P. M.	Wet. 5 P. M.
January	47.4°	41.9°	59.8°	47.9°
February	50.7	42.5	69.9	51.1
March	52.6	45.2	75.3	53.2
April	55.8	47.7	83.4	57.1
May	65.6	54.3	91.3	61.9
June	69.3	59.5	98.4	65.6
July	75.6	60.7	100.1	70.7
August	78.8	70.2	100.4	72.6
September	70.1	60.0	94.0	67.7
October	63.0	56.1	82.9	63.0
November	51.3	44.3	66.2	51.8
December	45.4	37.0	59.6	44.6

From 1876 to 1892, inclusive, the monthly mean temperature was 73°, the mean maximum 86°, and the mean minimum 59°. The highest temperature noted was 118°, and the lowest 25°. The largest number of days in any one year in which it was below 32° was 6. During this time the mean relative humidity was 44%. In 1892 the monthly mean temperature was 72°, the maximum mean 87°, the minimum

mean 58°, highest 116°, lowest 28°, and the mean relative humidity 40%. (From official records, Yuma, Arizona.)

A dry atmosphere favors evaporation, and thus keeps the body temperature down, causing the heat of the desert to be easily borne. A temperature of 115° here is less depressing than 90° in New York, nor is it so liable to cause sunstroke. This calamity is unknown here.

The altitude being low the atmosphere contains more oxygen, therefore more is taken into the lungs with each inspiration than is possible in elevated regions. At sea-level 1 cubic foot of dry air at 32° contains 130.4 grains of oxygen, but at an elevation of 5,000 feet the same quantity of dry air, at the same temperature, contains only 108.6 grains.

Clear, sunshiny days are almost the constant rule. The average number of rainy days (those in which the rainfall is .01 of an inch or more) will not exceed 5, and in these the sun shines part of the day, and the showers are so light that they need not be excluded. At Yuma, in 1892, the rainy days were 16, clear days 302, partly clear (including the 16 rainy days) 58, cloudy days 6.

The Colorado Desert, then, is a region in which an individual may live almost wholly, day and night, out of doors. "The Arab, accustomed to the free air of the desert, is said to be afraid of even the outskirts of the town. Many other persons there are, besides Arabs, whose sense of smell is sufficiently acute to detect the odor of great cities at a considerable distance. Yet there are multitudes of people in some of the most salubrious climates in the world, naturally, who fail to appreciate the difference between the stifling air of a badly constructed house and the Arab's tent, until they experience the results, or to recognize the fact that no climate is proof against the sickening emanations of a filthy soil, city or country." (Bell.)

The best climates for invalids are perhaps not the equable ones (though this is desirable), but those which present the greatest number of hours to be passed out of doors. Trudeau advises patients to be out of doors all the time in spite of weather, well protected, of course.

The researches of Koch have fully demonstrated the fact that tuberculosis is caused by a microbe, the tubercle *bacillus*. This microbe is a moisture-loving creature, and is quickly destroyed by sunlight and a dry atmosphere. It rapidly succumbs when exposed to the sunlight of the desert.

To make any climate available to invalids there must be facilities for getting there, and accommodations for them when they arrive. On this desert the only place meeting these requirements, at present, is Indio. This station is on the Southern Pacific Railroad (Sunset route), 130 miles east from Los Angeles, 20 feet below sea-level. It is in the midst of the desert, but has been so improved by the Southern Pacific Company, by sinking artesian wells and growing trees and shrubbery, that it has become a veritable "oasis in the desert," and a very lovely and charming spot. There are large trees—palms, cottonwood, poplar, fig, etc. The palm, so extensively used throughout California as an ornamental tree, is a native of this desert, and there grows to a very large size.

There are at Indio a post office, telegraph office, and a good hotel under the excellent management of Mrs. L. Marshall and a good corps of assistants. The hotel is comfortable, well furnished, heated with hot water, well supplied with sanitary plumbing, and the table is all that could be

desired. The main building has room for a dozen or more guests, and there are nine cottages connected with it, which will accommodate about thirty. There are bath-rooms and closets in the main building and all the cottages, with hot and cold water. The water is the very best, coming from artesian wells 600 feet deep, and is soft, showing no alkali in washing. The daily overland trains, both ways, stop here for meals.

Indio is already a well-known resort for invalids, and is an excellent foundation for a good sanitarium, if placed under the sanitary care of a competent physician, preferably one who is well informed as to the possibilities of the climate, and, by all means, one who understands the sanitary requirements of such an institution. It is a great mistake for a patient to imagine that, as he is in search of climate, he needs nothing else. "Invalids must not imagine that they are qualified to care for themselves, and that air alone will cure them. They must go under competent medical advice, so that every detail of clothing, food, exercise—in short, of daily life—shall be adjusted to place and time, to internal and external conditions." (Solis-Cohen.) Several physicians, with whom I have talked, have told me that they have frequently had patients they wished to send to Indio, but have hesitated because no physician was located there.

Consumption is not the only disease that would be benefited by the climate of the desert. The great majority of all cases of rheumatism, asthma, and nervous prostration will be relieved. I can personally testify that a person suffering with insomnia from overwork, or nervous prostration, will improve greatly at Indio, and such cases will be benefited by spending the hot season there.

Some cases should *not* be sent there, or any place away from home: (1) Cases that have progressed so far that the end is a question of a few weeks or months. *Hospital* cases should not go to a sanitarium. Home, with home comforts and friends, is the proper place for such. (2) The very "poor and respectable." The worry about finances counteracts the good effects of climate. (3) Timid people, unaccustomed to caring for themselves.

At Salton, 25 miles east of Indio, patients can find a salt atmosphere, with a further depression below sea-level—263 feet. Mr. Durbrow, Manager of the New Liverpool Salt Works there, tells me he has seen asthmatics and consumptives entirely relieved by a residence at that place.

If patients should desire a change for a few days, and such change is not contraindicated, a trip to Banning could be made, 43 miles west, at an elevation of 2,300 feet. Dr. John C. King, who has lived there eight or ten years, speaks very highly of the place. The late Mr. Munson waxed "exceeding eloquent" over the atmosphere of the San Geronio Pass. "Once upon a time" he wrote: "There is prevailing in this pass at this time a spell of weather that must tempt angels to leave the asphodel-starred shores of their high abode. The sunshine is as warm and comforting as a mother's love; the shade as refreshing as a summer shower. Through the day there sweeps by the breath of the desert, smooth and furred like a seal's skin. At night faint stirrings of the medicinal ether that serves us for an atmosphere suggest the whir of spirit wings and the voices of angel visitants. The hills approach in their distinctness, and like devotees in the confessional lay bare their every fault. The dark line of the hill crests against the sky as distinct

as penciling on ivory. From matin bell to matin bell every hour is a sweet legacy, and sleep is a robber who despoils us of so many hours of glory."

THE PRESIDENT: Will Dr. Cole please approach this end of the hall? Gentlemen of the Convention, it affords me much pleasure to present my distinguished friend, R. Beverly Cole, President of the American Medical Association.

DR. COLE: For many years, Mr. President and gentlemen of the convention, through my readings I have been taught to believe that if there was one quality of character that distinguished the residents of this, the southern citrus belt, it was that of kindness of feeling, hospitality, and generosity.

I regret that I am disappointed in the announcement which you have made in calling me here. I had supposed that you were so generous that you would scarcely expect me to address your convention. I am here in the humble capacity of a private citizen at this time; true, a member of this great and glorious profession, than which I love nothing in life more, and all that relates, appertains, and contributes to it. Is there anything that contributes so largely as that particular branch in which you gentlemen are now assiduously engaged—preventive medicine? Yet I would gladly have escaped making these remarks. They are not prepared, but if they had been, likely they would have been less acceptable, for as it is I speak from my heart and not entirely from my brain, when I say that this is the most important of all appertaining to medicine—the prevention of disease.

For twelve or more years, sir, I had the distinguished honor of being a member of the State Board of Health, in which time I dedicated much of that which could have been perhaps more profitable to me to the cause in which we were engaged, and to which our time justly was dedicated.

Much has been accomplished, sir, through preventive medicine, but there yet remains much more than has been accomplished; and while I can see the advances that are being made both in this and other States of the Union, so do I at the same time see many directions in which advances should be made. But this is neither time nor place—I was not expected, nor was I expecting myself to address you, and hence I think I had better not permit myself to open my heart fully upon this whole theme. It would occupy the entire afternoon, aye, it might be all of your coming evening and the day following, which would be both inconvenient for you who are here to attend the State Medical Society, and very tedious and uninteresting. I only say, therefore, that I am appreciative of the compliment intended in presenting me to your convention, and, thanking you for the patience with which you have listened to my few words, I make my bow. [Applause.]

THE PRESIDENT: This completes the program for the afternoon session, unless there are some volunteer papers which could be presented properly at this time, as we have at least a half-dozen very interesting papers for this evening, at which time we expect a large attendance. Dr. Nutting informs me that there is a most interesting volunteer paper presented by Dr. S. S. Herrick, of San Francisco. The title of it I do not remember.

DR. RUGGLES: I have the paper by Dr. Herrick. I now make a motion that this paper be read by title and referred to the Committee on Publication.

Carried.

DR. RUGGLES: Here is a paper by Mr. Oates, architect, formerly Plumbing Inspector of the City of Stockton, whose ability I fully recognize, he having served, as it were, under my supervision for two years, and therefore I move that this paper be read by title and referred to the Committee on Publication. It is a paper on "Ventilation of Public Buildings."

THE VENTILATION OF PUBLIC BUILDINGS.

By W. W. OATES, Architect, of Stockton, Cal.

Ventilation is defined by Webster as "the art or process of replacing foul air by that which is pure, in any inclosure, such as a house." Ventilation as applied to public buildings, schools, etc., carries with it, to a very great extent, the subject of heating, as each depends on the conditions of the other for satisfactory results; so that, putting it practically, it is the introduction of pure air (generally warmed) and the expulsion of the foul air, whether cold or heated. It is understood that the air of rooms, to be kept comparatively pure, must be changed constantly, the object being to prevent the certain effects caused by breathing vitiated air, such as listlessness, drowsiness, and often what *teachers* define as punishable restlessness. The restlessness in children so annoying to teachers might be traced, in many cases, to lack of pure air and a superabundance of that material known as carbon dioxid. This compound of carbon and oxygen is not of itself poisonous, but, according to Professor Brown-Sequard, the eminent physiologist, "there is associated with it, when furnished by animal respiration, one of the most powerful poisons known, exceedingly small quantities being sufficient to produce death." Careful experiments by English authorities show that with each breath a person throws off into the air one cubic inch of carbon dioxid. As air naturally contains from one and one half to two cubic inches of carbon dioxid in every five thousand cubic inches of air, this amount, plus the additional one cubic inch of carbon dioxid in the air exhaled by each person, or two and one half cubic inches in five thousand cubic inches of air, establishes, therefore, the standard of safety. Each person, then, renders unfit for further use five thousand cubic inches, or about three cubic feet, of air per respiration, which would equal fifty-four cubic feet per minute for each person breathing at an average of eighteen times per minute. At this rate, each person will require three thousand two hundred and forty cubic feet per hour; but, states Dr. Kellogg, "other authorities place the line of dangerous contamination at a somewhat higher point, and consequently require a smaller amount of air." This same authority places an average on the figures of the many who stand high in the science of domestic engineering, and finds, by actual test and experience, which was gained by the installing of large plants under his own charge, that two thousand four hundred cubic feet per hour is sufficient for each person in buildings other than hospitals, provided that other conditions necessary are given due consideration, one of which is to know definitely

the number of persons to occupy a given space, which given number should be the maximum rather than the minimum number, for the obvious reason that ventilating ducts may be readily reduced but not easily enlarged. It is claimed by some that the air-supply of a room should be computed by its size, without reference to the number of its occupants. This is certainly not correct, as a small room will demand a greater air-supply than a large room occupied by a like number of persons. Having determined on the amount of air per hour necessary for each person, the following subjects (five in number) are to be considered to secure effectual ventilation, according to Drs. Kellogg, Bixby, Wolpert, Parke, and many others, with whose theories and practical experiences we have become acquainted by review of their writings on the subject, and by correspondence:

1. *Proper arrangements for the constant movement of the air in rooms* consist in two openings—one for the admission of fresh air, whether it be warmed or not, and one for the exit of foul air. Attempts are frequently made to ventilate and heat buildings with only the one provision of the fresh-air inlet, or *vice versa*, but oftener the former, and the writer has in mind a church, into which fresh air is expected to be received from the outside without an outlet, except such as windows and doors. Nothing is more absurd than this; indeed, if it were not for the joints and crevices around windows and doors, and the occasional opening of the doors and windows themselves, it would be found impossible to warm and ventilate, in any degree, this building. The result is far from satisfactory as it is, either in point of heating or ventilation. The introduction of warm air without proper outlets (in the church referred to) causes pressure, gradually increasing until the point of endurance is reached; and when a window or door is finally opened for relief, a rush of air is caused, which is not conducive to good health.

2. *The area of fresh-air inlets.* Inlets are figured for their capacity, according to the sum total of the air required and the velocity at which the same is to travel. It is stated that air heated 40° above that on the outside will move at the rate of five feet per second, but when aided by an aspiring shaft or chimney the velocity may be placed at ten feet per second, and greater as the temperature of the incoming air is increased, or rather raised; ten feet, however, is accepted generally by competent authorities as a proper velocity for the incoming air. We will then divide the total amount of air required per second by ten, and the result will be the sum equal to the sectional area of the duct, in square feet; to which should be added from one third to one half, according to design, for register facings, which are necessary, but nevertheless obstructions if not allowed for.

3. *The size of ducts for the expulsion of foul air.* These should not be over one half that of the inlets, for the prevention of unpleasant draughts; that is, the velocity should be reduced to five feet per second. The area of the outlets is arrived at, then, by dividing the total amount of air required per second by five; thus, if ventilation is estimated for fifty persons, each to be allowed two thousand four hundred cubic feet per hour, the problem will be $50 \times 2,400$, or 120,000 cubic feet. Reducing this to seconds by dividing by 3,600, the number of seconds in an hour, we have 33.3 cubic feet required for each second. This we divide by five for the velocity desired, and we have 6.6, which represents the area of the outlets in square feet, and plus the one third for register facings, equals 8.8 square feet.

4. *The location of fresh-air inlets and foul-air outlets.* This is a question upon which there is a difference of opinion, principally, however, concerning the foul-air outlets. Nearly all authorities agree that the location of the fresh-air inlets should be in or near an inner wall, and that it is a matter of no great moment whether it be admitted high up or low down: the result will be the same, because the heated air, being of a higher temperature and lighter than that of the room, rises at once to the ceiling, little or no diffusion taking place until that point is reached. The location of the outlets, however, is a matter of greater consideration. Complete movement, and consequent change of *all* the air of an apartment, will depend almost wholly on the location of the outlets. As before stated, the current is direct to the ceiling from the point of entrance. The ceiling being a level plane, its area is traversed until contact is made with the inclosing walls, which at once turn the current downward to find an outlet. It follows, then, that the nearest outlet to the incoming air register, if in the course of the current, will be the *natural outlet*. If perchance a large register or opening were located immediately above the inlet, then this register will become the outlet; if, again, an opening happens at a point in the ceiling at the opposite side of the room, or in the floor below it, it will become an outlet. Yes, you will say; but what will become of all that undisturbed air space between such outlets and the point of entrance of the fresh air? The question suggests to us a conclusion, that the location of the outlet is yet the whole width or length, as the case might be, away from the proper point of where its use will influence the most air space of the apartment. It has been stated by what seems good authority, that outlets should be in the outer wall, opposite that of the inlet, urging that if outlets are placed near where the fresh air enters, the warm air will fall to the outer walls, become cooled, and cause cold feet, attended with numerous bad effects. We say *emphatically* that no such results can be had with ample heating capacity and properly proportioned inlets and outlets; and doubtless if any such case did exist, it would be found, on measuring the ducts, that the outlets were too large in proportion to the inlets, or that it was a case of inadequate heating capacity, which is too often the case. We are constrained to believe that with ample heating capacity, the warm air will not be cooled more than 2° or 3° by the outer walls, which will not be appreciable at a velocity of five feet per second; at least no ill effects could be caused by so gradual a movement of the air. Better results will be obtained by the architect so laying off his plans that the current circuit may be parallel to, rather than at right angles with, the principal window wall.

5. *Ventilation*, or the constant current of air entering and in turn passing out, is secured by two methods—one by an aspiring shaft or chimney-like stack, and the other by means of a fan exhaust or power blower. Aspiring stacks are designed to exhaust the air from the rooms, creating a partial vacuum for the incoming fresh air. The air current of the aspiring stack is caused by heating, first, by means of the smoke flue of the furnace heater, so constructed as to pass up through the stack for winter seasons; and, second, by properly constructed stoves, called stack-heaters, placed at a point just above where the foul-air ducts enter the stack, for operation during the summer months and other times when the heating furnace is not in use. Coke has been found to be the best fuel for use in heating stacks and producing up-currents or draughts

because of the small amount of attention necessary to keep it going, and will not be subject to failure, as some mechanical devices are, such as fans, water-supplies for boilers, etc. Mr. Sugg, in a paper accurately describing the ventilation plant of the House of Parliament, England, in all its details, writes: "The utilization of the powerful shaft in the clock-tower to produce an upcast sufficient for the extraction of the products of combustion and vitiated air from all the rooms, offices, and chambers of the House of Commons, has been very simply and scientifically arranged. A large iron grille, rather less in area than that of the shaft itself, is fixed at about four feet from the ground, so as to allow of sufficient air passing under it to keep a layer of coke freely burning on it. The size of the coke fire regulates the velocity of the upcast. The heat of the burning coke produces an upcast more or less rapid as the fire is increased or diminished, or as the external atmospheric influences affect the draught either one way or the other. In cold weather the draught, with the same amount of fire, is better than it is in hot weather. This is easily remedied by slightly increasing the fire in summer. By this extremely simple method the whole of the heating power of the coke is converted into force. The saving of labor in looking after the fire, as compared with what it would cost supposing steam, electricity, or other motive power were used in combination with a fan or other contrivance, is enough to render this method the cheapest and best way of putting so large a body of air at so low a velocity into motion, with the help of the shaft." While it may be admitted that fans or other mechanical devices are necessary in certain cases, and must be used to supplement, the general verdict of those who give the subject most attention (the majority of those of mercenary intent) is unfavorable to the general use of fans or blowers and exhaust fans. Our own observation confirms this.

The new City Hall of San Francisco was constructed embodying certain theories of ventilation calling for forced air currents by the aid of power blowers, and we were informed by one of the Health Department that the plant had never been in operation, and the reason assigned was, cost of maintenance. In Stockton an example is found in the new Court-house, the pride of all Stocktonians. This building (on its plans) was provided with a system of ventilation, but in its construction it was decided by the building committee (the powers that be) to omit certain of the features contemplated in the system. The building committee, being composed chiefly of gentlemen who had paid more attention to tilling the soil than to the theories and practice of domestic engineering, concluded that a fan to "pull" the air out of the building was indulging in luxuries quite beyond a point they considered their constituents would stand without the regulation "kick," so the fan feature met with disapproval. The state of affairs caused by this serious omission does not end, in this case, in simply depriving the various apartments of this beautiful building of efficient ventilation, but adds to all the evil effects of vitiated air, by turning ducts intended for outlets of foul air into inlets for the admission of sewer air. This foul air was designed to be drawn downward by the exhaust-fan, but by its inoperation such air is carried by the ducts into the other apartments, until a large portion of the building is affected by the poisonous and nauseous air.

Dr. Kellogg, in writing of this subject and of fans, states: "I have visited many large institutions provided with large ventilating fans, and have not yet found one in which the apparatus was in constant opera-

tion. In many places it had been inoperative for years, and was not in running order. In one case I was informed that the fan was started 'whenever the odors in the ward became so strong as to be noticeable.' To my nose the odors were at that very moment pronounced, and yet the fan was not in operation. The noses of managers and attendants become accustomed to odors, to the presence of which they are constantly exposed, so that they cease to be a proper means of testing the condition of the air."

Our conclusions, then, in respect to the practical use of fans, must form the basis of a verdict emphatically against them, or rather their *pretended* use. What can be more ridiculous than the expenditure of large sums of money for appliances to effect ventilation, and then settle down in contentment and false security, awaiting satisfactory results, without the operation of the plant.

It was stated in the beginning that to keep the air of rooms comparatively pure, the air must be changed constantly. The question some janitor, or perchance a school teacher, may ask is, how are we to know that the air is being changed, and whether it be at a proper state of humidity etc.? This leads us to another phase of the question, which demands attention and furnishes ample food for thought. We have dealt with the installation of the mechanical and practical details of the plant, but however well this may be figured out, much yet remains to effect the desired result. Air is affected in a more or less degree by its relative dampness. The general opinion, unsupported by tests, or other means than casual observation, is that air is injured by heating, and consequently the heated, dry air is detrimental to respiration. This is not correct, unless extremes are allowed to be set up as proof. According to Bixby, Wolpert, Sugg, and other experts who have made extensive researches and practical tests with the hygrometer, it is not injurious to inhale reasonably *hot*, dry air. On the other hand, it is found that small percentages of humidity or dampness cause the very identical effects claimed to be caused by dry heat. While the extreme in either case may cause similar effects, it does not follow that a reasonably dry condition of air is injurious or even undesirable. Very certain it is that the higher the degree of heat and percentage of dampness in a room, the more heat is conveyed to the occupants, and beyond the reasonable or average point will come ill effects; therefore, it will be seen that a "happy medium" should be maintained; that is, each extreme should be avoided by the installation of a plant of ample capacity, with provisions for an even degree of heat and humidity; also, each room should be provided with an air-tester, combining a thermometer to show the temperature, a barometer to indicate the density, a hygrometer to measure its moisture, and an anemometer to test or determine the velocity of the air currents. A knowledge of the exact condition of the air in school-rooms, as to all of these conditions or elements, is essential, and absolutely necessary to expect anything like perfect results and assure comfort and health to the occupants.

The air-tester: Although somewhat new and not generally understood, the one devised by Professor Wolpert is not complicated and may be easily made. An air-tester should be used for one particular reason: Perfect ventilation, after all the ducts, inlets, outlets, and other devices necessary to the system have been provided, can only be attained by strict dependence on some device or reliable means of determining the

quality of the air other than by mere observation, as you would by the thermometer in the sick-room. The teacher in a school-room, not being proof against the ailments of the body, may feel oppressed and mistake his or her condition for faulty ventilation, and cause windows, etc., to be opened; but if provided with an air-tester, the teacher need but to examine to determine wherein the trouble lies. It will be well to state, in connection with this subject, that open windows are a positive detriment to the successful operation of ventilation systems having aspiring stacks, owing to violent draughts, the effect being the same as in cases where the areas of the inlets were made too large in proportion or without regard to the areas of the outlets, as before stated, causing increased currents of air, which become in the nature of draughts.

DR. RUGGLES: If there be time and any one is willing to read Dr. Herrick's paper, I wish that it could be read, for the reason that the State Board of Health is struggling, so to speak, with the question of contamination of drinking waters. I will state that among the proceedings of the State Board of Health at its previous meeting has been the subject, discussed frequently and very effectually, I think, in relation to the contamination of the drinking waters coming into the Sacramento River. It is a fact that the Board has visited the State Prison at Folsom, twenty-two miles from Sacramento. There are nine hundred convicts there. Their fecal matter is turned directly into the American River, undiluted, and everything in perfect shape, and goes down the American River to the citizens of Sacramento. When the question was presented to the directors of that institution in regard to the impropriety of such action, they immediately said, "Why isolate us; why pick us out and not pay any attention to those on higher portions of the river?" meaning Red Bluff, Marysville, Chico, Colusa, and some other points. The argument was irresistible. Therefore, a committee was appointed by the Board to visit those cities, and at the same time to see as to the amount of contamination of the Sacramento River. That committee will report to the State Board of Health at its next meeting. This paper by Dr. Herrick appertains, as I understand, to that very question: in what way is the drinking waters of our rivers contaminated by sewage. Therefore, I hope, if there is some gentleman here with a good voice, that he will read that paper.

(Paper read by the Secretary.)

THE POLLUTION OF POTABLE WATERS—ITS PROPER REMEDY IN CALIFORNIA.

By S. S. HERRICK, M.D., of San Francisco, Cal.

It is unnecessary, in this presence, to adduce arguments in proof of the sanitary necessity of pure water for drinking and cooking purposes. On the present occasion I shall not consider objectionable constituents of a mineral character belonging to natural waters, but only those organic impurities admitted through neglect of plain and practicable hygienic precautions.

Liability to contamination increases directly with density of population, and measures of prevention which are for a time unnecessary

become afterward imperative. These, however, can not be left to the voluntary action of separate individuals, but must be made binding by Penal Acts reaching the whole population. The time has not fully come, but is fast approaching, when the defilement of streams in California will seriously affect the public health, and it is well to consider, in advance, appropriate means of prevention.

The proper disposal of town sewage is the most important and difficult problem in this connection, and before long the public welfare will require its total exclusion from streams and from lands contiguous to the same, or to springs and wells. This does not particularly concern San Francisco and the other cities and towns adjacent to tidal waters, but the growing towns of the interior must soon face it. Fortunately for California in this regard, its conditions of rainfall give value to water for irrigation, and, still more fortunately, town sewage has greater worth for this purpose than pure water. Details of method is the proper work of the hydraulic engineer. It is true that the financial results of sewage-farming have not been flattering in Europe and in the Eastern States of our Union, where rains are perennial, but in California irrigation is almost everywhere beneficial, and sewage is worth more than clear water.

In this respect, as well as in the disposal of solid refuse by cremation, Los Angeles has set an example worthy of imitation. I am indebted to Dr. H. S. Orme, a long resident of that city, and former member of the State Board of Health, for the following particulars:

1. The greater part of the sewage of Los Angeles is now used for irrigation.

2. The works are public, except those belonging to the South Side Irrigation Company, which sells water to those requiring irrigation.

3. The lands irrigated are private property. On the line of the great outfall sewer to the ocean, owners pay at the rate of \$3 for twelve hours' run of the sewage.

4. This plan is successful in an economic sense, because the city derives some revenue from what would otherwise go to waste, since irrigation is necessary and customary on those lands.

At Pasadena sewage-irrigation has been successfully practiced for three years, under management of the City Council. A farm of 300 acres is owned by the city, half of which has been used in this way. The soil is a loose gravelly loam, most of it having been impoverished by repeated cropping. In two seasons the crops were increased enough by this irrigation to pay all expenses. All the sewage of Pasadena and part of that of Alhambra is applied to this tract—that is to say, the excreta and liquid waste of five thousand people to one hundred and fifty acres. At first some complaints were made, and a restraining suit was brought by a non-resident land-owner; but now all the owners of contiguous lands are desirous of obtaining the sewage. It has been found, both here and elsewhere, that apprehensions of disagreeable odors and sickness are groundless, with good management. Of course, intelligent supervision is necessary, to prevent excessive application of sewage at one time. Enough land must be available, so that different portions may be successively treated. The greatest difficulty is encountered during the rainy season, when more rapid rotation is needed.

I am informed that the sewage of the asylums at Stockton and Napa is applied to their own lands. Although the sewage of San Francisco

now takes the shortest and easiest flow into the bay, it is practicable to divert most of the outfalls, so as to apply it to many of the hundreds of vegetable gardens which are now dependent on wells and windmills for needed water; and it is probable that the city might derive a fair return on the increased expense of its sewer system suitably modified to meet this object. As sewage always carries in suspension a varying amount of solid matters: these deposited in proximity to the wharves must in time produce shoaling of the water and lead to expense for dredging; to say nothing of unpleasant fouling near the outfall of sewers close to ships moored to wharves.

But it cannot be expected that the general disposal of town sewage will be compatible with good hygiene, in the absence of special legislation. It is true that the Penal Code contains a provision which, to the non-legal mind, might be presumed to cover the ground; for Section 370, adopted 1874, reads as follows: "Anything which is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property by an entire community or neighborhood, or by any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin, or any public park, square, street, or highway, is a public nuisance."

Section 372 reads: "Every person who maintains or commits any public nuisance, the punishment for which is not otherwise prescribed, or who willfully omits to perform any legal duty relating to the removal of a public nuisance, is guilty of a misdemeanor."

In 1876, Section 374 was adopted, having reference to the pollution of streams, lakes, and reservoirs supplying water for domestic purposes, by the carcasses or offal of dead animals, or by live animals kept on lands contiguous to such sources of water-supply. It is presumable that Section 374 was adopted because Section 370 was found defective, in failing to specify forbidden acts; and on the same ground it may be supposed that courts would not construe Section 370 to apply to the fouling of waters by sewage. Judicial acts are governed by precedent, and, so far as I know, there is no judicial condemnation of sewage pollution in California. The complaint is a new one here, though not so in England and the more populous Eastern States of our Union; and it may be presumed that our courts would decide as did the country innkeeper when one of his guests complained of the common roller-towel: "My friend, the towel is all right; a hundred persons, as good as you, have used it without finding fault."

It is only within a few years since Section 374 was effectually applied, so as to prevent the free range of cattle and hogs upon the lands adjacent to Lake Merced, which supplies the Spring Valley Water Works of San Francisco. The Act remained a dead letter for nearly fifteen years.

Probably the most flagrant pollution of potable waters in California is the discharge of the sewage of Folsom, including its thousand convicted felons, into the American River, twenty miles above Sacramento. Our legislators take their cold infusion of the Folsom Prison for sixty days biennially, without wry faces, and remain fixed in the belief that it is good medicine for the Sacramento people the whole year round.

The remedy is a new Act, specifically forbidding, under appropriate penalties, the contamination of water-supplies by human excreta,

whether by individuals or communities; also giving any aggrieved party action for damages actually sustained through sickness, and relief by injunction against acts liable to result in water defilement. It is to be noted that the Penal Code of California, relating to nuisances, has hitherto applied to persons rather than to communities, and it is not to be expected, therefore, that our courts would hold municipalities or corporations amenable to these acts, in the absence of precedents; yet the following quotations from text-books of acknowledged authority seem to me applicable:

"There is no principle which allows a city to conduct into a stream, by means of sewers, the water and filth which comes from a dense population." (Lewis on Eminent Domain.)

"A municipality has no more right at common law to pollute streams with sewage than a private person, and its duty to prevent public nuisances by taking care of the sewage gives it no right to create another nuisance by the pollution of a stream." (Angell on Water-courses.)

"Even if sewage has been discharged into a stream for several years, but in quantities not producing perceptible injury, it confers no right to afterwards increase it, so as to cause serious injury." (Wood on Water-courses.)

"Cities are not entitled to foul the rivers with the contents of water-closets and convert a stream into a stinking sewer." (Addison on Torts.)

The following is from an Act of the Ohio Legislature, adopted in 1893: "No city, village, corporation, or person shall introduce a public water-supply or system of sewerage, or change or extend any public water-supply or outlet of any system of sewerage now in use, unless the proposed source of such water-supply, or outlet of such sewerage system, shall have been submitted to, and received the approval of, the State Board of Health." It has been found of great service in that State, and the same, or its equivalent, would be equally useful in California.

I venture to express the hope that this subject will be brought before our next Legislature, and that our State Board of Health may be active in promoting some measure of reform.

DR. GEO. A. WHITE, of Sacramento: I am sorry to say that I did not give the paper the attention that its importance demands. The fact that the subject of pollution of water-supply is particularly placed in the American River makes it a matter of interest to all Sacramentans. The Folsom Prison is situated some twenty miles above Sacramento, and, as the writer states, the sewage from that institution is carried direct to the American River. The pollution of the drinking water from the river, of course, will, in time, necessarily follow. Up to this time, I believe, the statistics of the City Board of Health do not show an increased amount of disease, such as would be expected from that contamination. We are, however, awaiting with fear and trembling that the statistics in the future will develop an alarming condition of affairs, and we are praying that a law will be passed to forbid the State from contaminating public streams. The cities above Sacramento, as Dr. Ruggles states, also empty into the river, and also add their filth to the water which we drink. The law is lamentably defective in permitting that condition of affairs. What will be done in the future will rest largely, I presume, with the State Board of Health. We hope that they will take active measures to bring the subject before the Legisla-

ture in such a forcible way that that body will be compelled to act. I am very much pleased with my visit to this convention, and with the papers read in it.

THE PRESIDENT: The question has been raised whether we shall read the minutes thus far, or wait until the end of the convention, as the minutes will be approved by the convention. What is your pleasure?

DR. WHITE: I move that the reading of the minutes be dispensed with until the business of the convention is over.

Carried.

THE PRESIDENT: I will state that circumstances, as you know, have interfered largely with the attendance to-day. Physicians coming from a distance are met by friends, and are scattered hither and thither, and the physicians of the city are at their offices, as they are usually when a convention meets in their own city. We will have a good attendance this evening, and a good program, and we contemplate calling the convention early, as the program indicates, at half-past six o'clock.

Adjournment was here had until 6:30 P. M.

EVENING SESSION.

HOUSE VENTILATION.

By D. B. VAN SLYCK, M.D., of Pasadena, Cal.

If to heal the sick, to relieve pain and suffering, entitle medicine to be considered the noblest of callings, though success in its practice generally brings more or less applause, a fair pecuniary reward, and (exceptionally) wealth, what meed of praise shall be accorded the man who devotes his time and energies to the *prevention* of disease and to teaching the people how not to get sick, which is the distinctive function of sanitary science?

The medical profession has proved its unselfish devotion to humanity by being the pioneers and chief workers in this cause. We can proudly point to well-fought fields and battles won, but still the war on dirt and uncleanness is only just begun.

We have only carried the outposts. Visible filth, and the stench from decaying animal and vegetable matter, appeal forcibly to the senses as unsanitary, and the importance of clean streets, good sewerage, proper house drainage and plumbing are now pretty well understood, and the best modes of effecting these fairly well carried out.

It is to invisible filth in the air we breath inside our houses that I desire to call your attention—a subject which has had scant consideration in the past, and is still woefully neglected in practice by architects and builders, whose business it is to give us clean, healthy houses and public buildings that are not a menace to health.

We demand pure water and clean food, and are satisfied if these seem so to the eye. Our stomachs revolt at a hair in our butter, or a speck of dirt or an insect in a dish set before us at dinner. Nothing would induce us to drink a glass of what looks like dirty water, and the very

thought of human excrement induces nausea; yet we sit unconcerned in a crowded, unventilated room where every breath of each occupant exhales the poison of carbonic acid gas, and, more pernicious still, the other products of the combustion going on in the system and thrown off by the lungs, as well as the noxious exhalations from the surface of our bodies. We are oblivious of the fact that the skin is a great secreting organ, and is pouring the waste of tissue in invisible particles into the atmosphere every moment, and that this is just as much excrement, just as nasty, and just as poisonous as the excretions of any other organs—as the liver, kidneys, or bowels.

Indeed, the skin often supplements other organs, and sometimes saves from death by its vicarious action. If the liver should cease to act, bile is thrown out through the skin, and the whole surface of the body becomes yellow. If the urine be suppressed, the odor of it, after a time, becomes very apparent in the air about the patient.

If the bowels are constipated for several days, a distinct fecal odor pervades the sick-room.

The presence of a laborer who perspires much, wears the same clothes all the time, and seldom bathes, will soon make the air of a large room intolerable. How much more offensive will be an assembly room occupied largely by uncleanly persons? We can all recall the peculiar odor of unventilated school-rooms, that airing through a whole vacation and thorough cleaning cannot make sweet; also, the sickening stench of dirty bedclothes in the tenements of the poor and slovenly. This is the odor of accumulated excrement. All such matter is more or less poisonous, and can only be guarded against by personal cleanliness and good ventilation.

If you should wash some of the air of an unventilated, crowded room, by passing it through a small quantity of water, you would be astonished at the amount of filth that would become visible. Your stomach would revolt at the sight, yet you breathe the filthy air that held it into your delicate lungs, where the poison is absorbed into the blood from the immense surface of the air cells, and think nothing of it. Bad ventilation poisons in this way, and also by the lessened amount of oxygen available for respiration, and, in consequence, the metabolism of tissue-waste is less perfectly performed, excretion is hindered, impurities are retained in the blood, assimilation suffers, and not only is disease thus directly produced, but also the general vitality and vigor are lowered, and a fruitful soil offered for the propagation of pathogenic germs, especially that of the tubercle bacillus.

It is my firm belief that in as many as three fourths of the cases of consumption, the predisposing cause of the disease is bad ventilation.

In cold climates, it is by no means the low temperature, nor even the sudden and extreme variations of temperature, that make tuberculosis so prevalent, but the fact that a large portion of the population is, for near six months of the year, housed in furnace-heated and unventilated rooms—the women of the better classes at home, and working-women in shops and factories, while the offices and places of business of the men have not even the pretense of ventilation.

The successful treatment of phthisis at Davos in Switzerland, and in the Adirondacks in this country, by compelling patients to spend the greater part of each day in the open air, even at zero temperature, proves

that it is life in the open air that cures, and that cold is not in itself an unfavorable condition.

The inference is a reasonable one: that the well would not get sick of this disease if their mode of life were ordered in the same manner.

It is well known that cavalry soldiers in active service seldom get sick, and that primitive races of men, and especially nomadic tribes, are almost exempt from tuberculosis.

The same thing may be said of the whole rural population of this country in early days, before the invention and introduction of stoves. The broad fireplaces and immense chimney flues made the air as pure indoors as that outside the houses. So that their whole lives were practically spent in the open air.

The records of old-world prisons show that the death-rate from consumption used to be something frightful.

The introduction, about 1840, of systematic ventilation in the Vienna prisons, though of a very imperfect sort, soon reduced the rate over eighty per cent. About the same time good ventilation was provided for the barracks of the British army, and the death-rate from consumption straightway fell from nine in a thousand per annum to only two and a half. Proofs like these, of the efficacy of pure air in the prevention of disease, might, were it necessary, be multiplied indefinitely. As a general abstract proposition, everybody admits its importance, but in the concrete everybody, in practice, ignores it.

Could we all, like our pioneer forefathers, spend our days in active labor in the open air and our nights in as well-ventilated houses as theirs, there could be nothing better, in a sanitary sense, to be desired; but the exigencies of modern civilization require more than half our population to live in towns, and to spend the most of each day, as well as their nights, in houses. No other sanitary problem, therefore, can possibly exceed in importance that of keeping the air in our houses and places of public resort as pure as that outside.

Science has solved this problem, as I shall prove later on, and it is only a question of willingness and money for the public to realize its great benefits.

The ordinary idea of ventilation is to admit more or less outside air through door or window, to somewhat dilute the vitiated air inside; and even this much is made subordinate to warmth.

If the temperature of the room be below 70°, everything is shut tight, however close and malodorous the air may be, until the occupants are too warm; then a door or window is thrown open, and the unlucky victim of the draught is pretty sure to catch cold. Indeed, living in foul air predisposes to catarrh and respiratory troubles on very slight exposure.

This is the prevailing mode of ventilating cottage and mansion, boarding-house and grand hotel, churches, schools, public halls, and theaters.

In California houses are scantily provided with chimneys—even many of the better sort—so that more or less rooms in most of the houses—even some large and fashionable boarding-houses—are warmed by all sorts of makeshifts; gas stoves and the deadly lamp and oil stoves add the products of combustion to the already polluted air. And still this is the Mecca of consumptives! They come thousands of miles, at great expense and trouble, to be poisoned in this land of sunshine, and be embalmed and shipped back by the undertaker!

What a different showing would we have for this glorious climate could these poor victims of disease be made to live in the open air by day; enjoy proper sanitary conditions in their houses, and also have a suitable dietary enforced by an intelligent physician.

But enough has been said on this branch of our subject. I have claimed that science has solved the problem of perfect ventilation. It consists in removing all the air in a room in a systematic manner, and in a given time, and replacing it by pure air from outside the house. The principles involved in its accomplishment are really very simple, and the modes of effecting it are, however they may differ in detail, resolvable into two, called the exhaust and plenum systems.

In the former, the foul air is drawn out of the rooms and constantly replaced by pure air from the outside, warmed to a proper degree. In the latter, air is forced into the rooms by machinery, and provision made for the constant escape of the foul air.

The former method is better adapted to private houses, schools, and ordinary public buildings, while the latter is more often employed in such large establishments as hospitals, prisons, factories, etc. The exhaust system only will be considered in this paper.

I wish to premise that twenty years ago, as a member of the school board of an Eastern city, I was given full power in sanitary matters, and for ten years planned and superintended the ventilation of the school-houses of the town, old and new, so what I say is of knowledge and founded on practical experience.

To begin with, then, we will suppose that it is required to heat with a hot-air furnace and ventilate a school-house of four large, principal rooms. To heat it in the usual way is to have a furnace with a hot-air chamber, a cold-air box, a smoke-flue, and pipes to conduct the hot air to the several rooms.

It is within the observation of every one that hot air from a furnace, when admitted into a room, at whatever altitude from the floor, rises at once to the top, by reason of its rarity. This air comes directly from out of doors, through the cold-air box, is warmed in the hot-air chamber of the furnace, and when it reaches the rooms above is as pure as need be. If the experiment be begun in the middle of a school session, we shall have a stratum of pure, warm air at the top of the room and the foul air below, and unless some means be provided to withdraw the latter, all the air, by the law of the diffusion of gases, will become speedily foul. Now, if we could have an air-pump of sufficient capacity to remove the foul air at the bottom of the room, through an opening at the floor, as fast as the heated air reaches the top of the room, good, pure, warm air from above must gradually descend and take the place of the foul air, and perfect ventilation result.

It will be readily understood, too, that by increasing the volume of incoming air, that is, by increasing the size of the cold-air box and making a hotter fire, and, at the same time, increasing the capacity of the air-pump, the entire air of the rooms can be changed as rapidly as is desired.

A heated flue affords exactly the kind of air-pump needed. Build a chimney with one large flue proportionate to the number and size of the rooms to be ventilated; carry the smokepipe of the furnace up this, and to the top of this chimney; have proper sized ventilating registers

on a level with the floor of each room and opening into the chimney. These points as to size, capacity, etc., are determined mathematically.

As soon as a fire is started in the furnace, a strong current of air moves up the chimney, coming, of course, through the ventilating registers in the different rooms, and our air-pump is in full operation.

The apparatus is absolutely automatic. The hotter the fire the more warm air is delivered, and, also, the hotter the fire the hotter the flue and the more foul air is removed. In ventilating school-houses, they can be planned so that one furnace and flue will answer for four principal rooms.

In larger houses, heated by steam, the furnace flue can be made to ventilate all the rooms that touch it, and coils of steam-heated pipe, in flues made expressly for the purpose, can do the same for the others.

In the bottom of each ventilating flue there should be a stove, or small furnace, expressly for ventilation when no heat is needed in the rooms.

There should also be a cold-air flue alongside the hot-air shaft, with a valve between, to temper the air when too hot, and to introduce cool air when furnace heat is not needed.

The efficiency of this sort of apparatus can be readily proved. With an anemometer measure the velocity of the outgoing air; then find the delivering area of the ventilating register, and you can figure in a moment how many cubic feet of air are withdrawn from the room in a minute. Now find the cubic contents of the room, and it is easy to know in how many minutes the entire air of the room is changed.

Of course, the more rapidly the change is effected, the more fuel will be required to maintain a proper temperature. One important consideration is, that there is no need of open doors and windows, and the consequent exposure to draughts.

A still greater sanitary refinement can be attained by filtering the air of dust as it leaves the hot-air chamber. It may even be washed and dried, and then warmed to a proper degree, or, in hot weather, cooled by being passed over blocks of ice.

This has been done for rooms from which it is important to absolutely exclude dust. With the double doors and hermetically closed windows, the occupants breathe perfectly clean air, and in dog-days enjoy a most delightful temperature.

I am happy to say that there are two new school-houses in Pasadena thoroughly well ventilated. One was done by the Morgan Heating and Ventilating Company, of San Francisco, and the other by Bennett & Basore, of Los Angeles.

I believe them both to be as near perfection as possible, with a single exception. If the entrance to the cold-air box were outside the building and several feet above ground, much less dust would be carried in.

Bennett & Basore have put their apparatus in thirteen school-houses in Los Angeles. Any one interested in the subject, and disposed to do a little sanitary missionary work in his locality, should visit one of these houses and learn the details of the work.

In ventilating churches, theaters, and places of public resort open to the roof, it is better to introduce the heated air through many openings in the floor and have ample ventilators in the roof, so that the whole volume of air in the building is constantly moving upward.

Trinity Church, New York City, is satisfactorily ventilated in this way; the entire basement being a hot-air chamber.

The principles involved in heating and ventilating, as above outlined, are equally applicable to private houses. It is only necessary that each room communicate with a heated flue.

When a hot-air furnace is used, the main chimney should be made to accommodate as many of the principal rooms as possible, after the manner described for school-houses, and rooms not so reached should have open fireplaces or flues made expressly—a board shaft even will do, heated by a gas jet or even a hand-lamp. When hot water or steam is used, it is a simple matter to heat the ventilating flues away from the main chimney by coils of pipe. It must always be borne in mind that a cold flue does not ventilate, so that, when the furnace heat is not needed, special means must be provided for heating all ventilating shafts.

In small cottages there should always be chimneys enough so that each room can have a flue for a grate or a stove; and the latter, in this climate, should be of the Franklin type, with large smokepipe, so as practically to act as an open grate; while in cold climates each stove should have a cold-air box, so as to be supplied with pure air directly from outdoors, and ventilate into a hot flue. In sleeping-rooms at night, when no fire is needed by day, a gas jet or hand-lamp, or some other arrangement, should heat the flue.

The most disgraceful imposition upon the public is the unventilated condition of hotels and boarding-houses. I have never seen one where systematic ventilation was even attempted. Their charges are high enough to cover every possible sanitary provision, but the bad air the guests must breathe in them is as great (or a worse) menace to health than bad plumbing would be; and I believe it to be as much the duty of the State to interfere to enforce sanitary ventilation as sanitary plumbing.

The chief difficulties to be encountered in securing a general and radical reform in this matter are: popular ignorance as to the need of it, added to ignorance as to *what* to do; while above all others stands the increase in the expense of building, and also the increase in the amount of fuel required. It must be owned that these two items of extra expense required to secure good ventilation, though not large, are still considerable, and important to men of small means; but then, doctors' and undertakers' bills, and inability to work on account of illness, are all expensive, too, and worth evading at any cost.

The average man, in his eagerness for gain, will run great risks to himself and family to save a few dollars; and with him as a landlord, the health and even lives of tenants often weigh scarcely at all.

We must therefore create a public opinion that will compel architects and builders to give this matter their serious attention, and then invoke legislation to secure to the people, first, pure air in all school-houses, churches, theaters, and other places of public resort; then in all hotels, boarding-houses, and places of entertainment; and finally, in all private houses. There should be as rigid an inspection of houses, in regard to ventilation, as to plumbing.

DR. GEORGE L. COLE, of Los Angeles: Mr. President, and Members of the Convention, I certainly have been greatly pleased by this paper, and in it I find nothing to which I could take exceptions. If we could inculcate these principles into the families who come under our care, in the long run we would probably do them much more good than we do by writing prescriptions for them. However, the majority of families cannot appreciate such advice, and I suppose we will continue to go along in the same old way, writing prescriptions for the money there is in it, and the families will appreciate it in their same old manner. It is a difficult matter to get people to put into practice. One thing that occurred to me while Dr. Van Slyck was reading his paper is that medical men, who know full well these principles, are just as slow to put them into practice as are the public—people who are supposed to know very little about them. I think that if to-day we were to start out and go around among the offices and residences of the physicians, we would find that they fail to carry out these principles to just as great a degree as do the people at large.

With regard to the ventilation of houses in this warm country—a semi-tropical climate—I think that the most of our houses are built in such a manner that the air gets through the crevices, and ventilation is much more perfect. The doors are open much of the time, and really I feel that we suffer less from improper ventilation in a climate of this character, than do those who live in a rigorous climate. Yet, we should be none the less careful in following out these principles. I regret that this paper will not reach a larger class of people than it will. I wish that it could be published in such a manner that the people at large might get the benefit of it.

DR. VAN SLYCK: I have just this word to say: that although this is a mild climate, and when the sun shines we can always get along so as to have very fair ventilation during the daytime, the greatest menace to health are the cool nights. The nights are always cool in this country, almost always through the entire summer, and there are so many people, invalids, especially consumptives, who are afraid of the least breath of air from outside; if there be a suspicion of anything like a draught the windows must all be shut, and the most of them sleep in rooms without even a window let down from the top or open at the bottom. A window open three or four inches, and the shade drawn down over it, they think is pretty fair ventilation, whereas it is no ventilation at all. It would be very easy, in building houses, to have some sort of a ventilating flue, which could be heated if they could not afford an open fireplace or anything of that sort—just a simple flue heated by a lamp or a gas jet, would afford good ventilation for a sleeping-room. If I were to advise a consumptive patient in preference to any other kind of treatment or any kind of medicine, it would be to insist upon having a room with an open fireplace in it, or I would ask him to hunt the town over until he found a room where he could have an open fireplace, and then the thing would be in his own hands. If it gets cold in the evening he could have a little fire, or even a lamp in the fireplace to ventilate at night, because he will not have the room open, for he is sure that he will catch cold if he does.

THE PARAMOUNT SANITARY NEED.

DR. NORMAN BRIDGE, of Los Angeles: Dr. Van Slyck's paper certainly is a most admirable one, and it included a great deal of what I should have said had his paper not been read. It seemed to me, and it seems to me now, that there is among all the sanitary needs one that is paramount. And when we say a sanitary need and refer to the sanitary need that is paramount, we of course understand the one that is possible of accomplishment or supply. There are a great many things that we would like to have for our comfort that are impossible, that are not attainable, and we should not speak of those in a practical discussion like the discussions that should be had in a convention of this sort.

Dr. Van Slyck has very well stated the different and several harmful influences that are brought to bear upon human beings in the shape of bad foods and poisons, and he might have added 'injurious occupations and all that—infection and so on. He has hinted at, indeed, he has stated, what the paramount need is. The paramount need is a need of a reformation in our mode of living and life, that is attainable to a certain degree. It is better ventilation for the rooms and in the rooms that are occupied by people when they are at rest; namely, when they are sitting and when they are sleeping. The ventilation of rooms that are occupied by people when at work is not so important, because the doors of nearly all rooms, factories, and stores are being opened more or less by people coming in and going out, and that makes a little ventilation. In some cases machinery is in operation, and that produces some ventilation. In many of them heat is present, and that produces ventilation. Besides, people can work at a lower temperature, and they are therefore not as subject to colds from draughts.

Therefore, I believe that the necessity of better ventilation for people when they are sitting in sitting-rooms and when they are sleeping, to be the paramount need, in a sanitary way, that is possible of attainment. Dr. Van Slyck has explained, in a very forceful and minute way, how rooms should be ventilated, how houses in general should be ventilated, and he has spoken of some methods of ventilation in a private way and an inexpensive way that I confess I had not thought of, or if I had I certainly had not thought of it in connection with this discussion. Everything that he has said about this matter is wise, and it is a matter of great moment, I think, that the profession of medicine should take up the systematic discussion and advocacy of laws for better ventilation of new houses. We cannot bring about legislation for ventilation of old houses, but it is as proper, as attainable, it seems to me, to insist on some means of ventilation in new houses as it is to insist on correct sewerage and correct construction in other directions. But even if we should agree that we would unanimously memorialize the Legislatures of States and the Common Councils and Boards of Trustees of towns, and even if we should succeed in accomplishing a rigid system of inspection of plans for new houses, to the end that they should all have some means of ventilation, it would be a long time before we would do very much good. However, it would gradually educate the people, and the advocacy of these measures would educate the profession in the right direction.

Now, the question to me, and the question for all of us, is, can we not do something without involving the expense of new houses and additional facilities in new houses—something that will not involve the necessity of legislation at all, but that will simply grow out of education of the public and the systematic work of the profession? The profession does not need to be educated about these matters. The profession knows, and, as Dr. Cole has well said, the profession neglects. It knows well enough the people ought to breathe pure air, and it knows well enough the people ought to have houses so constructed that the inhabitants may have good air, and yet it allows people to go on building houses in the most abominable way imaginable, exactly as though the profession had entered into a league to increase its own business. Of course, the thing is improbable that any doctor would allow a patient or a friend to build a house in an unhygienic way simply for the purpose of bringing himself more business. But it looks that way, and it might be well charged upon us from the outside. It seems to me we can do a great deal in a particular direction, without expense and with the facilities at hand, with the miserable houses and miserable tenements and miserable hotels and boarding-houses exactly as we find them.

We spend in the rooms that I have referred to—the sleeping-rooms and the sitting-rooms—at least ten twenty-fourths of our time. So, all that Dr. Van Slyck has said in arraignment of the bad air and living in bad air of the sick and the well is true as to most of us—ten hours out of twenty-four, at least. It is true as to some of us for twelve hours out of the twenty-four. We are breathing just such contaminated and miserable atmosphere as the doctor has referred to. The injury from breathing bad air can be understood better than any other way by noting how breathing good air serves the sick and serves the well, and that Dr. Van Slyck has set forth in his exposition. We send patients away from home that they may live in the open air, and the consumptive patients occasionally get sent out to some place where they can live in tents, simply for the purpose of giving them fresh air. If a person droops and becomes debilitated and loses his appetite, we are very likely to say he should have an outdoor occupation; that he is too much confined indoors. It seems to go without saying, it seems to be a matter of common knowledge, that indoor life is the bane of mankind, which is true. It is the bane of mankind. As the doctor has also said, soldiers do not take cold; soldiers in camp life are usually healthy. They sleep on the ground, covered with only a blanket; or they sleep in tents. They do not take cold; they are healthy and vigorous. When they go back to home life and live in rooms, they begin to take cold. The reason why most of us take cold is that we are lowered in our physiological standard. Let indigestion come, let a lot of fresh ptomaines be produced in the alimentary canal, to be absorbed, and a person will take cold twice as readily. It is not the draught, it is not the chilling to the healthy person that produces the common cold, but it is these influences to a debilitated person, a person debilitated from any cause, and the debility incident to breathing over and over the atmosphere of a room contaminated with one's own breath and with other contaminations—these things, I say, are among those that most powerfully lower the vitality and produce the susceptibility to cold.

What is good air? What constitutes good air? It is a thing that we don't stop to think of, as a rule. Dr. Van Slyck has set forth some of

the contaminations of air, which make air bad, and one of the contaminations is carbonic acid gas. That is true. He don't say how much carbonic acid gas. By the same reasoning, how much other contaminations do we find in rooms occupied as sleeping-rooms and as sitting-rooms? Of course, it varies a great deal; but, as you will remember, the atmosphere out of doors contains perhaps four parts of carbonic acid gas to ten thousand; three in some parts, but not more than four anywhere. In the average room occupied for sleeping purposes among the common people, I have not a doubt that the proportion is four to eight times that amount. It is the judgment, I believe, of all sanitarians, that the amount of carbonic acid gas indoors should be kept down to at least twice what it is out of doors. So that if it is three and one half parts in ten thousand out of doors, it should never be permitted to be more than seven indoors; seven or eight, we will say. I wonder how many of us stop to think, as we go about in and out of rooms that are stuffy, and as we advise the sick and the well, and the sick living in rooms, I wonder how many of us stop to think how much fresh air is required to keep down the carbonic acid gas to twice the quantity in the air out of doors? It requires something like three thousand cubic feet of air each hour to be introduced into the room for each person. How many sleeping-rooms in the best houses, how many sleeping-rooms occupied by doctors, are ventilated in that way, do you suppose? Certainly, very few. Yet that is attainable. It is perfectly possible to have that. With such ventilating flues as Dr. Van Slyck has referred to it could be done without any difficulty, and a quantity of air like that can be introduced into a room, if it be introduced in the proper way, and it will not produce a perceptible current. But let a current of air be perceived by any person, and he straightway will believe, unless he is a very exceptional person, a decided exception to the general rule, that he is about to take cold, and he will stop that draught or that current of air in some way or other.

What prevents the reformation? What are we to do, what can we do, about it? The common belief on this subject is that night air is harmful, and that currents of air are especially prone to produce colds; moreover, that colds—cold-catching—are the great bane of our lives and the beginning and cause of a large number of mortal illnesses. I am sure that we can never accomplish much good in the direction I have indicated until and unless we can convince the people that they are mistaken in two or three particulars. In the first place, we should endeavor to convince them that the night air is not poisonous and is not harmful in any way. That seems a strange proposition to be made in a medical association—to need to be made to a medical audience; and yet that is one of the directions in which, if we are to accomplish any good to the public, we must work with the people. A great many doctors curiously have the impression that patients must run indoors from the night air—go in as soon as the sun approaches the western horizon, and not come out until it is one or two hours high in the morning. Nearly every sick person who comes from the East into this quarter for his health, and practically all—the majority, certainly—of the well people who come here to live, are told by dozens of people, old settlers, that the night air is dangerous, that it is always cold. It is cold, it is true. They are told that they should go indoors about four or five o'clock in the afternoon, and not appear outside again until eight or nine o'clock

in the morning. So that, if they take that sort of advice, they are sure to be housed twelve or fifteen hours out of the twenty-four. If the night air is harmful, it is harmful to let it into the rooms. Of course, it is night air in the house as truly as it is out of doors. But the people don't understand that. They understand that the atmosphere in the rooms is somehow safe to be breathed, but that the atmosphere out of doors is extremely harmful. There never was a greater heresy on earth. There cannot be a greater heresy. Night air is distinctly a cleaner air to breathe than the day air, and a better thing to breathe than the day air. It has considerably less dust, and its microbes are only about forty per cent of the day air—microbes of all sorts. Of course, the majority of microbes are not pathogenic, as we all know, but the microbe and its admixture of the night air probably do not amount to more than fifty per cent of those of the day air. There is only one trouble with the night air—it is colder, and that is all there is about it. If we could remove the impression from the public mind, therefore, that this is a harmful thing, we would accomplish a very great good. It would remove this bugbear of terror from the minds of the sick, and they would be willing to breathe the night air if they could somehow do it without taking cold.

A person will not take cold by reason of cold air or moving air, provided his body is warm at all times; and, therefore, a patient may sleep in a tent, or under a wagon, or in a room with windows on nearly all sides, and windows wide open, and he may feel the current of air over his face every moment he is awake during the night, yet he will never take cold, provided his body is warm; and any person who has any considerable proportion of the normal vitality of the human body may keep his body warm by clothing it in wool. Therefore, one of the first steps for the profession to take, I am sure, is to convince the sick, certainly, and the well as far as possible, that in a country like this, where there is such a difference in the temperature of the day and the night air, and where so few houses are warmed in the night, that people should sleep between woolen night-gowns, and, if necessary, in the winter time, should sleep between woolen blankets instead of cotton sheets; and, if necessary to protect the head, particularly if it is bald, from sensations of a draught, they should wear woolen night-caps. If they will do this they may be told, without any danger of a mistake, without any danger of accident, without any danger of their demonstrating that we are wrong, that they will not take cold, that they cannot take cold to save their blessed lives, if they will do these things. If we could do this for the sick we would remove one of those obstacles, I am sure, to good ventilation for sleeping-rooms. These people with the miserable rooms they have, therefore, may have good ventilation when they are asleep. There is no difficulty about it at all. They have to be convinced, however. They won't believe this at first, but a reasonable patient will nearly always believe it. I have had a good many dozens of patients in the last five years here, who not only have believed it, but also have demonstrated it, and I will relate the experience of one of them—a tuberculous patient, who lives at Redlands. He was very much surprised when told that he could sleep in the open room, and that he had better sleep in a tent; that he might feel a current of air over his face without taking cold. He said he would try that, simply to see whether it was true or not, if for no other purpose. A year ago last fall he went

back to his home from his vacation at the seaside, and constructed a tent on the veranda of his house, that was twenty feet long and about five or six feet wide; and he put his bed in there, and slept in it all winter, sleeping in woolen blankets and woolen night-gown, and a woolen night-cap over his head. The wind blew out one end of the tent and he never replaced it, but put his bed up to the other end, and let the wind blow and the rain come. He never caught cold, and he came down to me last year, as ruddy and vigorous looking as any person in Southern California or any other place in the world, declaring that he had not only not taken cold, but also had a very enjoyable time. Similar experiences have come to a large number of patients, but certainly only a few have made so severe a test as this man did. I am positive that this bugbear of a current of air endangering life to a person asleep, even if he is warm, is one of the greatest obstacles to a restoration of health, and one of the greatest obstacles to the keeping of health on the part of well people in this part of the country.

This problem, therefore, is easier of solution than the problem of the sitting-room. A person can clothe himself and get into bed and throw the windows up, and never mind if it is cold; he can keep warm. He is still; he is surrounded by a large amount of clothing. He will do this more readily than he will sit in a room to read his paper or to read a letter, or to play cards with his friends, or to chat with them, with good ventilation, when his room is very warm—and here we are confronted with some difficulties like those suggested in Dr. Van Slyck's paper. It seems as though we must have ventilation in order to have health. We certainly must in sitting-rooms. Better ventilation is needed there than in sleeping-rooms, for the reason that there must be lights, and unless the lights happen to be incandescent lamps, of course they destroy more or less of the oxygen in the room. Moreover, the oxygen of the room is frequently harmed by the heating apparatus. A gas stove unconnected with the chimney, or a kerosene lamp, is very likely to be the means of heating these rooms among poor people. They will not ordinarily, therefore, have good ventilation. How can we induce them to have good ventilation? How may we change their circumstances? One of the first things to do, I am convinced, is to induce them to clothe themselves better as they sit in their sitting-room at night. And so invalids, and all people, should be urged as far as possible to wear like underclothing the year through, as thick underclothing as possible, even in summer—woolen underclothing, or linen woven in such a way as to produce a large number of air spaces in the clothing, and covered, perhaps, with a thin layer of wool—and to regulate their attire for the fluctuations of heat at different times in the day by changing overclothing. I know it is a difficult thing to do, to induce people to make such changes as I have indicated, because people will forever endeavor to put on thin underclothes in the summer, and thicker ones in the winter. It is just as well, and better for that matter, to wear thick underclothing throughout the year, and to take off a change of overclothing for the heated mid-day. I think if the profession would endeavor, it could educate the people largely out of the habit of wearing the same overclothing night and day, evening and mid-day, and morning and mid-day, through the summer. If more underclothing were worn, and when needed, a thicker coat put on—a little wrap put over the shoulders by a woman, a thicker coat by a man—it would be found

that ventilation of sitting-rooms in the night and evening would not be so objectionable as it is.

What can be done in the matter of heating sitting-rooms? Dr. Van Slyck has told of some of the means and of the best means. The great difficulty, the great obstacle in Southern California, is the expense of heating. There is no doubt about that. Fuel is high. Therefore, the fuel should be made to tell to the utmost in the production of heat. Valuable as fireplaces are for ventilation, they are very bad from a standpoint of economy in heat. It was long ago demonstrated that a fireplace only gives the occupants of a room about ten per cent of the heat of the fuel, and ninety per cent goes up the chimney. A tubular furnace, or a tubular stove put in a room—a furnace under the room, if you please—will preserve to the occupants about ninety per cent of the heat produced by the fire. If we cannot induce people to build houses with furnaces constructed as Dr. Van Slyck would have them, we can induce people now and then to put into the basement, in order to supply the sitting-room and the hall of the house with warmth, a common heating stove, and to have that surrounded by a double wall of wood or a wall of brick, and a current of cold air brought in from outdoors, to deliver fresh air into that chamber around the stove. A register in the floor above will enable the family to receive the benefit of probably forty per cent more of the heat produced by a given amount of fuel than is accomplished by a fireplace. If expense is an object, and if it is an object to economize in the fuel, have a common heating stove put into the middle of the room, or near the middle of the room, a little distance from the fireplace, and have it discharge into the fireplace, the front of which shall be covered by a piece of tin or sheet-iron. I know that Dr. Van Slyck would say that that prevents ventilation, but that makes heat cheaply, and if you can induce a person to introduce that sort of heating apparatus for the purpose of economizing in heat, he may ventilate his room and is more likely to open the windows and ventilate it in that way; so I think a greater good would be accomplished than by leaving the fireplace open and allowing the individuals to continue in their efforts to economize by building a fire only when it is very cold, and then a very little fire, and shutting the windows for fear of the cold air lowering the temperature of the room. Of course, lamps and gas stoves unconnected with chimneys are abominable, and no physician should allow one of them to be used without protest. If we could accomplish some of the ends that I have indicated, that should make and would make this southern country a sanitarium truly. There is no reason why the invalids coming here should not breathe fresh air twenty-four hours of every day. As a matter of fact, most of them now breathe fresh air about ten or twelve hours every day. They breathe an air that is unfit to be breathed by a healthy person ten or twelve hours a day, and it rests with the physicians whether they shall do it differently and better. We would lessen the death-rate, we would lessen the ratio of sickness, if we could institute these reforms. But in order to accomplish anything in this direction the people must be convinced. There is no other way, and the profession is the only instrumentality that can convince them. We cannot depend upon any other class of persons whatsoever. A few non-professional sanitarians can accomplish practically nothing. The medical profession can accomplish a great deal, and if it will act unitedly in these matters, it can accomplish a very great deal.

I am sure that the points that I have made are the most important ones in accomplishing the purpose referred to. We must convince people that the night air is safe to breathe, and indeed better than the day air, and that statement should be made over and over again and harped upon so that the public would come to know that somebody disbelieves in the common notion of the harmfulness of night air, and that that somebody is a doctor or a professional. Then people must be taught, and particularly invalids, that cold-catching is impossible from moving air if the body is warm; that a person whose body is warm, whose top head is covered, may be exposed to the wind all night and cannot take cold to save his life. Then we should endeavor to induce people to heat their sitting-rooms better, and insist on their clothing themselves at night so that they will be able to have the ventilation that can be gotten through the windows of any room that even a poor person may be compelled to occupy, and we will head off another great injury to the sick. I am reminded of a difficulty, and it is interesting, and I speak of it because it is interesting, and it is vital to some—the notion that the sick have about being out of doors and staying out of doors. You tell an invalid, particularly a pulmonary invalid, that he must stay out of doors so many hours a day, and he will endeavor to accomplish that. He will go out of doors at a certain hour, and he will put his overcoat on, perhaps, if it is cold, and in order to prevent cold-taking he will walk; if he is able to get into a carriage and ride, he may do that; if he can afford a horse to ride, he may get a horse and ride, but it will fatigue him greatly, and if he walks to keep himself warm, that will fatigue him. I have known a good many pulmonary patients, I believe, to die, who might have been saved for a long time, if not restored to health, by simply taking too much exercise. I think it is one of the foolish injunctions put upon a great many pulmonary individuals, particularly upon those that have fever, to exercise much. I personally believe that pulmonary patients who have fever should exercise very little, and that none of them should ever exercise beyond the desire of his muscles for exercise. When we go out in the morning we stretch ourselves, or when we get up, before we go out, perhaps, and it does our muscles positive good, and gives us joy; and when we go out in the morning we walk around the block, or perhaps a mile, and there is positive muscular pleasure in doing that. The patients know that. The patients do not know how they can be out of doors without riding or driving or walking, and not take cold from chilliness. When told that if they sit on a chair on a veranda, and put on an overcoat—a thick one, mufflers around their necks, if necessary—and cover their knees and legs and feet with a blanket, a heavy blanket, it is exactly as though they were riding in their own carriage—when told that they can do this they are greatly surprised. It is a brand new idea, and many of them are slow to adopt it; and those that do seem rather pleased with the idea, and surprised that they had not thought of it before. It shows how we fall into ways of doing. We get notions that become automatic to us, and to the sick especially, that are erroneous, and it needs some scientific person to remove these notions. I know I have helped a good many patients, and I presume many of you have, in this very direction, by showing them that they could sit out of doors in a chair on the ground, if well wrapped up, and that they would be just as well off as though they were riding in a carriage that cost four or five dollars

a day. I believe that when we go at it systematically we can convince people, particularly invalids, that they can do these other things, and so we may accomplish the paramount need in a sanitary way.

DR. W. F. SOUTHARD, of San Francisco: Mr. President, I have unfortunately given but slight study, and that in no systematic manner, to the subject under discussion. I am, therefore, wholly unprepared to give this question that consideration which it should have. Private hygiene and public hygiene, ventilation of dwelling-houses and public buildings, and kindred subjects, should receive the most careful attention of every physician, for we cannot expect the general public to understand the great importance of these questions in advance of those who should be their teachers in all such matters. The practical application and demonstration of this knowledge should be at the bedside of our patients. It is usually believed that the medical profession is educated upon all of these questions. Is this true? As a class, are we sufficiently well informed regarding hygiene, ventilation, foods and their preparation, to warrant patients to accept our dictum as final? It must not be forgotten that the people are being rapidly educated by the daily press, magazines, and current literature; we must, therefore, be prepared to meet our patients with intelligent answers to the numberless questions which they are continually asking.

All the legislation in the world will not amount to a hill of beans, provided it has not the support of the public; it is, therefore, absurd to think that we can make people take care of themselves by act of legislation. On subjects upon which the public are fairly well informed, legislation may be made effective: such as plumbing laws, vaccination laws, and quarantine laws.

One of the most important subjects, and perhaps as little understood as any, is that of ventilation and heating of rooms. The proper supply of fresh air to the inmates of sleeping-rooms should especially be commended to the attention of physicians. One third, at least, of the twenty-four hours is spent in the sleeping-room; another large portion is spent in living-rooms. The air of the bed-room is vitiated by the poisonous exhalations from the inmates; the living-rooms have, in addition, stoves, lamps, and gas to pollute the atmosphere. The air of the living-room is usually kept in motion by frequent opening of doors and windows, and the movement of people in and out; hence, this atmosphere is less dangerous than that of the sleeping-room. Dr. Van Slyck and Dr. Bridge have spoken on these points so well, I fear that I can add but little which will be either interesting or valuable. I desire, however, to emphasize Dr. Bridge's remarks upon the prevalent idea that night air is deleterious. It is singular how widespread is this notion that night air is unwholesome; the average person fears the night air more than he does re-breathing his own bad breath charged with carbonic acid gas. I have not infrequently been asked by patients if it was safe to keep a window open and let the night air into the bed-room. I have but one answer, viz.: "You have no other air to breathe excepting night air." Our aim is not to keep out the night air, but to have it as fresh as possible, that it shall displace the carbonic acid gas thrown off by the lungs.

There are many points of great interest which I should be pleased to discuss, but the number of papers yet to be read will prevent. I would add that physicians in visiting the sick-room should note the general sanitary condition of the house and its surroundings; the ventilation

of the sick-room; if in a private house, see if the air which is taken into the sick-room is brought in from some damp, ill-smelling area between other buildings, or from the cellar (as is generally the case), or does it come in fresh and uncontaminated. The question of food is of equal importance—its kinds and quality, its methods of preparation, and best of all the care in serving it so that it may be attractive and palatable to the patient; this is worth as much or more than the drugs prescribed. The physician who is thoughtful as to these matters will meet with greater success than he who gives little or no attention to details.

It is most unwise to permit plants and flowers in the sick-room or even in the sleeping-rooms. They look well, but are deleterious to health. Unless the air be pure, the strongest and healthiest person will in time suffer from its effects; he will experience a deterioration in his physiological system which will make him susceptible to disease.

Before I sit down, let me allude to a subject which has not been touched upon in any paper or in any discussion during this session. I refer to that abomination of abominations, the Pullman palace sleeping-car. I speak feelingly upon this point, as I came down on one last night. I see that I have struck a responsive chord in your hearts. It is a difficult matter to find language to express my sentiments concerning this chamber of horrors. Every one who has traveled much in these gilded saloons on wheels must have at times experienced the ill effects of a night spent on one of its shelves, which, when inclosed by curtains, gives one a sensation not unlike that of being in a closed box. Is it any wonder that, in the morning, many of those who have spent a night in a Pullman sleeper feel unrefreshed and tired; a bad taste in the mouth, and a dull headache? Several persons in our car awoke this morning with headaches, which did not pass off until this afternoon, and which were wholly due to the vitiated air in the sleeper. In the upper berth one gets the benefit of all the bad air which comes from below and from the horrible oil lamps which should have been banished years ago to the ash heap. The porter always turns down those which he does not extinguish; the gas arises from these partially burning lamps, and one entering a sleeping-car at night cannot but notice the combinations of coal-oil smell and the odor of vitiated air. The upper berths are in line of currents of air from so-called ventilation which do not carry off the products of combustion, yet are draughty. The lower berths are so shut in that the sleeper must necessarily breathe over and over again his own poisonous exhalations. These cars are either overheated or underheated—at one time you are in perspiration, at another you are freezing—there is nothing equable about their temperature. Hundreds of thousands of dollars have been spent in devising a car which must be acknowledged to be beautiful to look at and easy to ride in, but far from healthful. The day-car or tourist coach is much more healthful, for, though it gets pretty dusty, it also gets more fresh air. Then the bunks of these cars are cleaner at all times for not being upholstered. The old English compartment car, which obliges one to sit up, is less deleterious to health than the most magnificent Pullman car.

I have touched upon only one or two of the many subjects which ought to be of interest to all persons, especially to sanitarians. Dr. Van Slyck and Dr. Bridge have given us much food for thought and many valuable suggestions, which we should endeavor to follow.

DR. D. B. VAN SLYCK, of Pasadena: All of Dr. Bridge's remarks were certainly admirable, and I wish to refer, in continuation of the allusion in my paper, to the treatment of patients in Switzerland. They are kept in the open air, in the way Dr. Bridge suggested, when the thermometer is only 10° above zero, or down to zero. They are kept warm by clothing, but still kept in the open air in easy chairs. Dr. Bridge suggested a stove in the middle of the room, when the expense of fuel was an object. It is very easy with a stove of that sort to have excellent ventilation at no additional expense to amount to anything. Of course, the stovepipe goes into the chimney, and the chimney is a heating flue. If you have what corresponds to the cold-air box on the furnace to deliver air into the stove, you have a cast-iron cylinder with a sheet-iron casing to it. The cold air comes up from underneath, is heated the same as in the hot-air chamber of the furnace, and passes off into the room. If you have a ventilator at the bottom of your chimney, you will have as good ventilation in your room as you can get from any other appliance. The air is taken out systematically from the bottom of the room. The cold air is brought in from out of doors, is heated by your stove, passes up to the top of the room, and then descends; and it is easy to have a sitting-room heated and ventilated in the same manner in that way. It is no waste of fuel, and with your window or door open you can have most excellent ventilation.

THE GYMNASIUM FROM THE STANDPOINT OF THE SANITARIAN.

By W. W. HITCHCOCK, M.D., Los Angeles, Cal.

It may be said that there are two kinds of doctors—one caring for health, the other for disease: the former striving to improve and preserve, while the latter trains his mortar too often in the ranks of the angel of despair. Certain it is that the one cared for comes out ahead. At one stage in the history of civilization, the great man was the one who overpowered all others by physical strength. He soon gathered around him a retinue of weak followers, either as subdued competitors or as weak dependents, who must seek some strong person for protection. (This condition evolved great physical hardihood and endurance, coupled with that all-important attribute, which we now term "resistance to disease, or immunity, so important in its relation to the longevity of man.")

It is safe to say that for the last three quarters of a century the history of civilization must record rapid physical deterioration among the families who have been most active in evolving new ideas for the refinement of life and the amelioration of its hardships, until now we are trying to find with the microscope some substitute, to be injected under the skin, that will, *ad libitum*, produce immunity—an impossible substitute for physical force, branding ourselves as a race of lazy, shiftless creatures, suffering from inaction and disease. The trend of development has been, and is now, too much for brain and not enough for healthy bodies, and yet we know that this is an impossibility.

Medical science has done much, by discovery and the promulgation of physical laws and hygienic principles, to avert disaster by eliminating many deleterious influences that act with special potency against the

weakened and delicate. The beneficent influence on humanity has been partly overcome, however, by the rearing of weaklings whose career would have been short under less intelligent care; but, neglecting this part of the race that is doomed to natural extinction, we find that medical science has done nothing directly to avert the calamity that has menaced civilization from extreme specialization. The evil effects of over-mental stimulation without a suitable physical basis for support and expression of nervous phenomena, were first observed by educators and those engaged in training in some scientific pursuit. Ling, of Sweden, gave his life to the study of the needs of the body, and established a system of exercises that would do for the body what the routine of study would do for the mind. What Ling did for Sweden, John did for Germany, which resulted in sufficient improvement in physical stamina and patriotic zeal to drive Napoleon out of the empire.

The purpose of this paper, however, is not so much to call your attention to that which you already know, as to offer some few suggestions for discussion as to how the gymnasium may be used in a sanitary sense by the physician and master of physical training.

It is principally our business to deal with those who are physically weak, as they are the most susceptible to disease. Our mission as sanitarians being that of prevention rather than of cure, is it not possible that we can, in some way, point out a corrective for the defective bodily development, the harmonious action of which is so important to health? It is all apparent that what is done in this direction, especially in our large cities, must be done through artificial measures; and in response to this feeling of a need of improving the physical side of our lives, there has been a widespread movement toward the formation of clubs for exercise. In the cities these clubs have provided large and well-equipped gymnasiums for the use of members; *e. g.*, the Y. M. C. A. have been the pioneers in this work of improving the physical status of the young. In many of these, however, there has been and is an appreciation of imperfect, if not disastrous, results from lack of intelligent direction and competent instruction.

The gymnasium has been compared by some one to a drug-store—full of good things if intelligently used, but full of evils if indiscriminately taken. The question is, then, what use of the gymnasium will be best for the individual case? It should be conducted with as much care as the physician would exercise in treating a patient—recognizing every symptom, as it were, and then specifying correctively and not indiscriminately. The director should know what material he would mold and develop, and frequently examine to see if the results of his treatment are satisfactory or such as he expected, and keep a record of the past conditions, for a statement of a size or strength in figures is worth a dozen faulty opinions, and this, too, before disaster comes and discredit is thrown on the work.

Science has taught us that in living organism functional activity must be kept up, or there will be no development; and parents should be as zealous that their children should be as punctual and constant with the development, in the gymnasium, of some physical defect of their body, as they are in developing the brain by pursuing their mental training. Predisposition soon stamps as a type a deformity that has been developed in two or three generations, and succeeding generations that do not possess that peculiarity are looked upon almost as new varieties. This

is especially true of physical defects that impair the vitality of the parents. Notice, if you please, the stress laid upon this law by life insurance companies, whose business interests have no bias from sentiment. The excellent health of the applicant is not enough, if there be a record, going back two or three generations, of degenerative diseases that have proved fatal, or if constitutional vigor has been so weak as to let the life go out at about forty-five or fifty years of age from any immediate cause. The risk is poor.

The important lesson from this observation is that health cannot exist if vital organs are seriously undeveloped. Health is the condition of harmonious action and adjustment of all the functional activities; for instance, a normal pulse-rate is from seventy-two to seventy-six beats per minute under ordinary conditions of rest, but a pulse-rate of seventy-two after a half-mile run might be considered abnormal, and the ground for solicitude, for health would demand an increased activity of the heart muscle to supply increased blood currents to active muscles, that waste products may be eliminated and restorative elements be supplied. This is not all that is required, for there must be a corresponding increase of respiratory movements for oxidation and elimination. And so the perfect activity of any organ is shown to be dependent on the healthy activity of others; while the converse may be stated as a physiological truth, viz.: that imperfect action of any organ impairs the function of all others to some extent. A healthy muscle is, then, dependent on a healthy stomach, heart, and brain, no less than on good food, air, and sunshine; while the more refined intellectual processes are also based on a normal condition of the physical organs. Much may be accomplished by a dyspeptic, so also may a cripple go a long distance on crutches; but a healthy child is better fitted for study than a puny one, and health should be the first thing sought in our schools that are educating our children for the duties of life.

It seems strange that a healthy person is the exception, and not the rule. It is about as difficult to find a healthy person as it is to select a sound horse. There is an opportunity for the bold, new woman to change the destiny of the nation and accomplish a sanitary reform by invading the so-called first circles of society, and making it fashionable to be healthy. During our late war, when the drafts were ordered, many an apparently healthy man, who had carefully concealed the fact that he was diseased, under the searching examination of the army surgeon was compelled to surrender the secret and beat an ignominious retreat toward home, entirely deprived from taking part in the glory of the war.

Disease affects us religiously as well as socially. We frequently encounter those who claim to hate the world and live far above its pomp and vanities, and who have persuaded themselves that it was the legitimate result of their deep religious convictions, when in truth and in fact they were unable to make a distinction between a quickened conscience and a torpid liver. Yes; want of physical health does even more than this. It impairs our spiritual vigor. It puts us out of harmony with ourselves and everybody else. It begets a spirit of worry, and engages mankind in a senseless combat with the inevitable. This shortens life. It reinforces disease. If this be true, anything we can do to improve the physical stamina increases the powers of resistance to disease, and is an important sanitary measure. A clumsy person is in a certain sense a sufferer from partial paralysis. There are unde-

veloped nerve centers or nerve fibers that, if not quickened into life, will continue to degenerate, and in their decay will involve or at least affect other centers. At a recent visit to Glen Ellen, the Home for the Feeble-Minded, in the northern part of the State, the Matron, Mrs. A. E. Osborne, called my attention to the fact that the children, even in the higher grade, were all poor walkers, which illustrates this to a remarkable degree.

The acquisition of new powers over reflex or complicated movements is much more rapid in early life than after maturity. The old saying that "it is hard to learn old dogs new tricks," had its origin in this tendency to persistency in any habit of body or mind. A system of education that has in view the symmetrical relations of mental and physical qualities, cannot ignore the necessity of beginning physical training with the mental. The child should come under the care of an experienced instructor in physical training from the day of entrance to regular school life. A physical examination should be made that should determine the condition of heart, lungs, spine, muscles, skin, eyes, and ears. Many a case of incipient disease that eventuates in disaster would be discovered and put in the care of a physician, if necessary, or a correct régime of diet, sleep, exercise, etc., inaugurated, with the aid of the parents, that would counteract the tendency to disease or deformity, and save the child as a useful member of society. This following of the laws of health would paint with healthy blood the roses on the maiden's cheeks in such fast colors that more admiration would be excited than by tons of the two-bit article purchased at the drug-store. Many parents have no idea that there is in their children a deformity which menaces health, until a stranger points it out to them. It is not natural for us to observe our own defects or those of our children; which comes of our innate selfishness. The physical care of our children is as important as their mental training, and should go hand in hand. Not all can be attendants of the industrial schools, and if the State has power to take the children from our homes, five or six hours a day, she should see that, while there, their physical needs are looked after by competent physicians and physical instructors, as well as by idea-builders; for, what good is a store of mentality resting on a shattered frame?

Every ward of every city should have its physician and gymnasium-master. You may say that physicians do not take up the study of anthropometry, and that there are few competent gymnasium-masters. This is because there is no demand at this time. Such a demand should be created, if necessary, by revision of our laws, so that the labor of our teachers can be lightened and a just division made between mental and physical development, which will have a tendency to round out and make strong the whole, and not develop a part to the detriment of all.

There is another feature in relation to the gymnasium as a sanitary measure concerning medical men, about which I wish to speak, and that is, corrective work. Lack of development of certain parts of the body, as the thorax, particularly noticeable in those who are predisposed to pulmonary disease. There is no doubt that, if as much care were bestowed on our young in seeing that this particular part was developed with that care which the brain receives, tuberculosis would almost disappear. This has been clearly demonstrated in an able thesis written by Dr. S. A. Knopf, an extract of which appeared in the October number of the New York Medical Journal of 1895. Dr. Knopf's subject is

the Treatment and Prophylaxis of Consumption in Sanitariums—he might have said, with equal propriety, gymnasiums. In this thesis, which is the most exhaustive it has been my pleasure to read, it is clearly shown that if consumption be ever cured, it will not be done by antitoxines or medication so much as by educating the predisposed how best to establish a resistance to the progress and advancement of the disease. It would, therefore, seem that if tuberculosis had occurred in two or three generations, care should be exercised in regard to the thorough development of the chest, also the same care regarded in the avoidance of excessive exercise, such as would be required in many athletic sports that would seem at first thought especially suitable for a person predisposed to the disease.

To know a man well you should know his ancestors. It is therefore necessary and important that not only a thorough physical examination of each individual case be made, in order to find the physical defects, but also that the history of antecedents be noted. The condition and environment of the subject are also valuable in making a prognosis of the future history of the case. The boy who comes to school from the farm or workshop may be no better developed than his classmate, who has never known what physical work is, and be able to endure twice as much prolonged physical strain. His life has been spent out of doors, and he takes kindly to outdoor sports. The city-bred boy has a latent aptitude for anything, and with proper physical training is a strong competitor with his country cousin in any physical exertion.

The rush to and crowded condition of our cities, together with all forms of ingenious devices to lessen physical labor, are, no doubt, born of evil results that would naturally come of neglect in the form of retrogression and disease to the weakest part of the body. If this be the tendency of our so-called higher education, it is time the pendulum was set swinging toward a happy medium, and have the physical powers and the mental trained alike. Not until this is done will there be any material diminution in mortality statistics. With all our new remedies, with but few exceptions, there has been little change. Shall we still persist in our fruitless attempt to fight disease absolutely with drugs, when we know, as sanitarians, that the safest method of all is prevention? Can we conscientiously continue to practice medicine as an applied science, and permit consumption to destroy one sixth of the human family? Is the profession, folding its hands, willing forever to avow that the hectic flush on the cheek of youth must be the auroral flashing, heralding with certainty the approach of the cold winter of death? As sanitarians, inquiry should be addressed not only to the avoidance of disease, but also to the best and surest means by which resistance can be secured by individuals predisposed to special forms of disease. We should not forget that the children are to be the fathers and mothers of the succeeding generations, and that to be healthy is one of the greatest blessings of earthly existence; that the tendency is now, and has been for several generations, toward over mental training to the neglect of the physical; that this has resulted in defective bodily organization; that the human organism, like the chain with one defective link, is weak throughout; that, as a people, we are selfish and clannish, not apt to see ourselves as we really are, and should think and discuss what may be done in a corrective way. I have made particular mention on training and development of the chest, owing to the prevalent neglect of this

part of the body and the difficulties encountered in convincing people that no remedy has yet been found for the cure of these diseases.

Sanitarians are the guardians of public health, and the condition of future generations, both as regards physique and longevity, depends largely upon how well they are instructed and educated by them. In cities we should depend for corrective work upon the gymnasium, under the charge of competent instructors, presided over by a physician, and abandon the many worthless mechanical devices, and substitute brawn and muscle—a self-sustaining and reliable attribute. Man is the noblest work of God, and we should see that no loss in His physical image, by deterioration through negligence, should take place. From the human brain have come the wonderful conceptions revealing some hitherto hidden law of the universe of God. Man ought to know, first of all, the laws that will bring him up to the highest point of perfection, physically and mentally. Let not the telegraph, the electric light, the cloud-capped towers, and the gorgeous palaces tell of his genius and his power, and he be at the same time a dwarf and an invalid. Let him be, as God intended, in beauty and perfection of his being the crowning glory of all.

DR. S. A. KNOFF, of Los Angeles: Mr. President, I feel highly honored to be called upon in such a distinguished audience. I have little to offer, because Dr. Hitchcock has covered the ground so fully. I only wish to state that I am highly encouraged. I will tell you why. Ten years ago, when just from college, I made the first attempt, in the Los Angeles Medical Society, to read a paper on hygiene. The subject was, "Dress Reform, and its Relation to Medicine." As a young man I read it with palpitation of the heart. When our distinguished President of the Medical Society, who has now risen to the honor of being President of the State Medical Society (I refer to my distinguished teacher, Professor Wills) called upon certain distinguished gynecologists to open the discussion, they said they had not anything to say in regard to corset dress reform and medicine. Now, you can see how encouraged I feel when I hear this evening Dr. Hitchcock speak with enthusiasm on hygiene and exercise; and although he has not mentioned the corset, I know he is, in his heart of hearts, very much against it.

In regard to sanitariums, I have nothing to offer. The little work I have done has been published in the little synopsis which appeared in the New York Medical Journal. The importance of pure air has been sufficiently discussed this evening. There is nothing to offer. I would have some objections to make to the remarks, but time is advancing. I do not agree entirely with Dr. Norman Bridge, I must say. He has made some statements which I cannot subscribe to. Nevertheless, the importance of treating our consumptives with pure air, and paying great attention—most attention, I may say—to hygiene and diet, seems very plausible to me. During my experience as a young physician in Southern California, when I commenced to practice, I saw a good many consumptives; when I went to Europe I saw a good many more, and almost all treatments which have been applied up to date I have seen applied in the hospitals of Europe. I do not believe there is a medicine in the pharmacopia which has not been applied for the treatment of tuberculosis. They have all had equal results. When the patients had advanced far enough they all died, and they all died very shortly after

coming to the hospital. The attempt to cure patients in a general hospital is an absolute failure. When I began here as an assistant in the county hospital, I had not seen any cured; I had not seen a patient cured in the hospitals of Berlin, Paris, or Vienna. It is true they came, sometimes in advanced stages, and sometimes, and not infrequently, when they had just about passed the incipient stage, between the first and the last stage. Now, while I am convinced that if those people, instead of returning after six months to the hospital, had been treated properly, with good air and good food, they would never have returned; but they are bound to return to die there. It will cost the State just as much in the end as if, instead of curing the patient in the general hospital, she had erected a sanitarium. You all know of a sanitarium that is doing a grand work. The statistics of Saranac Lake are better than those in Europe. It is true they only take there incipient cases, not very far advanced; but, out of one hundred and fifty patients, to turn out twenty-five to thirty cured, and just as many relatively cured, is certainly a very remarkable thing. If you want to know how they treat patients there—air and food. There you have the whole philosophy. The institution is supported by charitable contributions. The actual cost for a patient is \$7 per week. The patients pay \$5, and the difference is made up by these charitable contributions. Dr. Davisson asked me the other day to try to interest some physicians here in a sanitarium. I have tried to do it, and they are all very enthusiastic about it; but what is needed here more than a sanitarium for paying patients is a sanitarium for poor patients. You have the county hospital here, and it expends a great deal of money on consumptives. They all go there to die. The cost would not be much greater in a sanitarium. It could be built in a very economical way, and the expense would not be as much as at Saranac Lake. We don't need the great expense of fuel. I have made a calculation that patients could be treated here for \$4 per week, and they would have a chance of being cured. The more patients we have, the more economy. The profession of the State of California should try to unite and build a sanitarium for the poor. I am sure the State Board of Health, and our distinguished President, very much desire that something of that kind should be done.

PUBLIC HYGIENE.

By J. R. LAINE, M.D., of Sacramento, Secretary State Board of Health.

The French term *hygiene* means that department of medical science which relates to the preservation of health and to the rules or regulations the observance of which tend to promote health. The term is derived from the name of one of the four daughters of Æsculapius, god of medicine. She was called Hygeia, and was represented on monuments as a young woman holding a serpent in one hand and in the other a cup, out of which the serpent drank. Her statues sometimes represented her with a veil. By some authors, she is regarded as identical with Minerva. The Greeks, as well as more ancient peoples, recognized that while the means for the preservation and promotion of health sprang from medical art or science, it was, nevertheless, a separate department from the curative or healing art. The imaginative

Greek clothed a bare fact in graceful metaphor. Medical art was embodied and deified in Æsculapius, son of Apollo, as god of medicine, while his daughter Hygeia was deified as the goddess of health. This would show that they understood medical practice to look to the healing, medication, and care of the sick, while the art of promoting and maintaining health, as typified in Hygeia, the daughter of the god of medicine, deified, as a separate and potential celestial entity, as goddess of health, would indicate a full appreciation of qualities and powers materially different from those of her illustrious sire. Both Æsculapius and Hygeia were represented with serpents. Serpents were particularly sacred to them, because they were the symbols of prudence and foresight—qualities so necessary in the physician. To the instructed Greek, the god and goddess were the symbols merely of the divisions of a branch or department of learning. Learning, however, as in more ancient nations, was necessarily confined to the few, and those few were mostly in the priesthood. It followed that the application of remedies was often associated with priestly functions. The formulated rules for maintaining and promoting health were, of necessity, made a part of the religious observances of the people; otherwise, they could not be enforced.

The great law-giver of the Jews recognized this fact most clearly. Under exceptional circumstances, after escape from the fate of the male infants of his race, he obtained the learning of the Egyptian court, and became an adept in the necromancy and mysteries of that ancient and subtle people. Moses possessed the qualities of a great leader. Brought up as an equal in a court where pride was a virtue; of alien blood; one of a despised and enslaved race; keen, receptive, bold, and unscrupulous, with the tireless mental activity that has everywhere characterized his race, he scrupled at nothing to accomplish the delivery of his people from Egyptian bondage and to found a dynasty of his own. His vigorous methods finally prevailed over the weak and vacillating mind of the Pharaoh, and he led his people across the Red Sea into the land of milk and honey—a grazing country—where he gave them his laws and established his ceremonials. He was especially desirous that they should believe in God, but it was equally important for his purpose that God should give the law through him. He knew it to be necessary to their very existence that the laws should be obeyed. A degraded people, for hundreds of years slaves to Egypt, corrupted by contact with the debased, weaned from the ancient faith, made skeptical by long suffering, brought to freedom without knowledge of its necessary restrictions, unused to any law but the will of the taskmaster, it is no marvel that they frequently reverted to the license of savagery. Moses knew that, in order to maintain them as a separate people, certain distinctive observances must be imposed; and to preserve their lives from the pestilences that periodically swept over Asia, and to limit and prevent the infectious and contagious diseases of other tribes from destroying them, it was necessary to impose the most rigid hygienic rules. Rules for the lying-in chamber, for the menstrual period, for eating and drinking, for the inspection of persons and habitations, for leprosy, for the scraping of walls of buildings, for the tearing down of buildings that held contagion, for bathing for disease, for treatment of plunder in war, for severe punishment for unnatural sexual relation, for circumcision, for fasts and feasts, are all in the nature of police regulation,

and as such have a purely hygienic or sanitary significance. To have argued the necessity of such rules to an illiterate people with idolatrous tendencies would have been as fatal as to permit them to escape punishment for their violation when he had power to inflict it. Moses was free from such weakness. Those who violated his rules were punished with death. He dealt the most rigorous severity for infractions that would scarcely be noticed in a modern police court. Yet, all of his hygienic and other police regulations were invested in religious observance and significance. It had been so on the Nile, where he had learned them, and had been so among those old nations that fade back beyond the written history of man.

The Greek mind, acute, quick, light, and fanciful, required no such arguments for the reception of an idea. To them, medicine was at times a necessity, and good health was always to be desired. It was not necessary to impose on them the laws of health as a religious observance, with a death penalty. Their environment and isolation might, in a measure, account for that. They had never been enslaved. They had little reverence for abstract matters. They were a practical people, who clothed their lessons in metaphor and graceful symbolisms. Hygeia was the symbol of private and public health. Her statues in different localities would show that health rules were observed in those places. That some people should worship the statue instead of obeying the laws of health was to be expected, yet to worship at the shrine of Venus or of Bacchus would have been absurd to the Greek if it had meant worship of the symbol or the statue. But observing the laws of health was not as agreeable as worshipping at the shrine of Venus or of Bacchus, and an appeal with offerings to Hygeia was not uncommon.

In our time, we accept the symbols of the Greek. We cannot improve on them. They appeal to the imagination. Instead of being the crude and fanciful conceptions of the pagan mind, they are beautiful expressions of the harmonious relations existing between two departments of learning, one emanating from the other; the daughter from the sire, the goddess from the god, implying obedience to parental authority, though of equal rank and station in their realms.

The physician has especial care of the sick with reference to the cure of disease or of securing temporary ease for the suffering. He is also called upon to answer questions as to the cause of disease and as to the best means of destroying, avoiding, or removing such causes. The treatment of a case or of a class of cases of disease may be purely hygienic. The prescription or the surgical operation must often be supplemented by advice as to air, food, clothing, residence, water, etc., and the giving of such advice in such a manner as to secure the compliance and obedience of the patient is of the greatest importance. The observance of the mode of life recommended by the physician is of far greater value than the prescription, which is often merely a reminder of the regimen prescribed.

The relation of the physician to the public at large is increased in importance as the population increases. He is brought in daily contact with legally constituted authorities, such as boards of health, registrars of vital statistics, health officers, and coroners, and he is frequently called into court to testify as an expert in matters relating to public health. The more eminent he becomes in his profession, the more will he be called upon to act as an advisor in public affairs looking to legis-

lation, not only in his city and county, but also in his State and nation; and he is held responsible, in a degree, for the position he takes and the advice he gives in regard to public health matters. This is true whether his attitude on these questions be active or passive, for silence will mean that, in his opinion, no necessity exists for action or change. There seems to be a feeling of distrust on the part of the general profession with reference to the advisability or even possibility of increasing the public health to such a degree as to diminish the rate of mortality. The physician is apt to view what he is personally engaged in as most important, yet he recognizes the necessity of pure air, pure water, pure food, and correct habits. He knows that, to obtain pure air and pure water, sewage must be gotten rid of, and that ventilation must be adequate; that, to obtain pure food, markets, slaughter-houses, dairies, and milk must be inspected. He consents to or advocates all of this, but retains an undefined distrust of public hygiene in its general sense.

The hysterical, exaggerated, and emotional statements and exhortations on what one shall eat, drink, and wear, and the awful penalties prophesied by rash and unauthorized writers, have had much to do in bringing the profession to this state of mind; nevertheless, none will deny that epidemics are prevented and controlled, that infections and contagious diseases are robbed of their terrors, by means purely hygienic, and that the term of life of the individual is increased.

There are many things relating to hygiene which are necessary to know, and many things that are so classified that it is merely necessary to know where to find them.

The etiology or genesis of disease has, from the earliest times, been the study of physicians, but not in special localities. But of late the general public have awakened to the importance of sanitary work, and the family physician is not infrequently asked for an opinion as to the healthfulness of a house or locality. He must be ready to give a known, probable, or suspected cause of disease, and also the best methods known to avoid, destroy, limit, or control it. The causation of disease, to illustrate, may be set down as heredity, impure water, impure air, occupation, intemperance, climate, food, habitation, clothing, sexual excesses, overwork, parasites, micro-organisms, contagia, overwork and exposure. This does not include mental causes, though they have a legitimate place in causation of disease. It is the custom of breeders of fine stock to select a sire and dam that possess the qualities of bone, wind, and disposition desirable to reproduce. But it is not often that the physician is asked to give advice as to a contemplated union where disease or hereditary predisposition exists on one or both sides, or where mental traits are known to exist that will prove fatal to happiness. Heredity of idiosyncrasy and of infirmity of temper or mental unsoundness should be a bar to marriage in a well-regulated family. Inherited syphilis should be a positive inhibitive reason.

The attention of physicians will be frequently called to the question of the water-supply of isolated houses, institutions, villages, towns, and cities. No one can determine, off hand, if water contains substances detrimental to health. It is also difficult to define in a definite hygienic sense, what is pure water. In the absence of positive evidence, it is sufficient to indicate the probability as to what suspected water contains. The water-borne diseases are cholera, typhoid fever, malarial fevers, and diarrhoeal complaints, and in instances where water drains

from grounds containing buried carcasses the water may be of the brightest quality as to appearance, but may engender various disorders not necessary to treat of at this time. Lead-poisoning may be produced from water. As formidable as cholera and typhoid fever are, they are nevertheless the most preventable of all diseases if pure water only is used. Malarial fevers may be contracted in other ways than by water, but water is a prolific cause of malarial diseases. Water taken from sources having the paludal germ, or water taken from wells in marshy places or regions known to be malarious, may be the cause of the disease.

Nothing in preventive medicine is better established than the fact that cholera and typhoid fever are conveyed by water oftener than by any other means. The germs are either deposited directly into the streams, or the rains wash them from the surface of the ground, or they reach the streams in the sewage of the towns, or percolate through loose soil from privies and cesspools, or pass in the same manner into wells from which water for drinking is used. Their existence and multiplication in the streams depend on the quantity of organic impurities already contained in the water, where these germs will multiply infinitely. This will illustrate the gravity of drinking water from streams in which a large quantity of municipal sewage is discharged. The water from such a stream may be used with little danger while it contains no pathogenic germs of disease, but let it be contaminated by cholera and typhoid fever, and the danger of drinking such river water, unless it be boiled, is extremely hazardous.

The possibility of contamination of river water alone, aside from the fact that disease germs are frequently conveyed by it, should lead reflecting men to seek elsewhere for municipal water-supplies. Water will seek its level, and everywhere the rivers are the natural sewers of terrestrial conformations. The expedients of farming sewage are available in an extremely limited sphere. It is necessary to obtain water from sources as much removed from the possibility of contamination from sewers as possible. While water from deep wells often contains undesirable inorganic salts, yet these are not always in quantities to be injurious to health; and such water frequently proves free from all objection. Such sources produce the ideal water-supply for municipalities, if obtained from such depths below impervious strata without faults that no surface contamination can reach them. Given such a water-supply and a system of drainage capable of quickly disposing of the sewage, and the town or city will reach the lowest death-rate from typhoid fever and a practical immunity from cholera during its prevalence. The examination of suspected water is not a simple matter and should be referred, when practicable, to a chemical expert; but the physician should have sufficient technical knowledge to enable him to appreciate the results reported by the chemist.

The subject of ventilation is fully as important as that of pure water. Malarial fevers are frequently contracted through the air as a medium of infection; but gaseous impurities in the air produce disease by reason of their offensiveness to smell rather than by conveying the germ. But such influences may lower the general standard of health in the individual, the family, or the community, so as to increase the susceptibility to any disease, and may bring about a variety of disorders. These causes may be termed effluvium nuisances. To avoid such nuisances there must be an efficient removal of household and municipi-

pal impurities. There must be no escape of gases and odors of decomposition in or near any human habitation. The subject of ventilation of houses and public buildings should be studied by the physician from a higher plane than that of providing merely for the requisite air space in rooms. The obtaining of fresh air through flues and registers, the regulation of the currents so as not to create draughts on the heads of the occupants in hospitals, schools, churches, theaters, halls, court-rooms, and private houses, should be seriously considered. The velocity of the current at the registers should be noted, as well as that in the flues. The habit of observation needs cultivation to a high degree to profitably inspect a public building from basement to garret in order to ascertain the source of contamination of the air. The plumbing may not be at fault when the pent-up air of rooms may contain an abnormal quantity of carbonic acid gas. It is not so simple a matter to provide adequate means for a renewal of air in a faultily constructed house. The evils of faulty ventilation are not always immediate. The results are frequently remote and obscure. Yet it certainly produces disease and shortens life. Diseases of the respiratory organs are favored and produced by insufficient ventilation. Practically speaking, the physician comes in relation to bad ventilation and disease-breeding effluvia in the court-room to give evidence; and, to acquit himself with credit, he should possess ready information and data sufficient to enable him to form and give a positive opinion without hesitation. Without such data and information, his cross-examination may show that the attorney has him at a disadvantage, by reason of special preparation.

Climate, or the sum of meteorological influences, such as air, water, soil, temperature, humidity, altitude, and wind, is a never-ending subject of inquiry to the physician from sick and well. The literature on the subject is extensive, but no rule can be said to be positively established with reference to the value of climate on longevity. Man adapts himself readily to all climates. How far the physician may go in his eulogy of special climates or localities, with reference to their therapeutical value and health-conserving tendencies, should depend on his special knowledge of the subject. There can be no precise rule.

With reference to food, space will not permit that more shall be touched upon than a bare approval of the pure-food law enacted by the Legislature of 1895, and the necessity of slaughter-house and dairy inspection. The danger to infants from using milk from tuberculous cows is not as fully appreciated as it will be. All vendors of milk in towns should be licensed, and no license should be given to sellers of milk from dairies that fail to conform to the standard required by the health authorities of the town. Uncleanliness about the methods of handling the milk or the milking of sick or tuberculous cows should be causes for rejecting or revoking a license. Pure water for cows to drink should also be an imperative requirement. I may add that the physician should understand cookery, so as to be able to give instructions as to the preparation of dietary articles, not only for the sick, but also for persons and families in health. It is no less his calling to promote and maintain health than to medicate and feed the sick.

It is very well understood at the present time that cholera and typhoid fever are to be managed by purely sanitary regulations. Quarantine is a temporary expedient and cannot alone be depended on. It is necessary only that none but boiled water be drunk and recently cooked food eaten

to practically escape these pests. Regulations looking to the prevention of tuberculosis by limiting the spread of the germ are receiving careful attention. The improved therapeutic agents for tuberculosis and diphtheria should be supplemented by the most painstaking hygienic precautions.

It may be well to touch upon overwork mentally and physically, and upon the results leading to what may be called mental causes of disease. The physician is often consulted by the victim of overwork and worry. The patient may be the hurried business man, or the pale student, or the enemic child at school. It may be the plain housewife whose physical exhaustion has reached its limit. There may have been mental strain or physical strain, or both, where the tension has been maintained so long that the delicate nervous machinery no longer coördinates and there is a want of harmony. The instrument is not in tune. No medication is equal to rest in such cases of mental and physical insolvency. But such rest may be merely change of vocation and scene. To consign the active mentality to the condition of stasis is to immure it in a dungeon of despair, a prey to horrible suspense. Let the scene be changed, and let the mind be occupied without the need of effort. A change of pursuit or occupation, with change of scene or environment, will often accomplish what no kind of therapeutic means can do.

The prevention of disease deserves the most careful study. Aside from those hygienic rules which imply cleanliness and the observance of the general laws of health, vaccination and re-vaccination are to be enjoined with never varying reiteration. All cases of smallpox should be given publicity. Such publicity forces prompt public measures to check the spread of the contagion. The policy of concealment is the most expensive that can be pursued. It favors the spread of the disease and exposes the innocent to danger. Through ignorance of its presence, no action is taken to check its spread or to stamp it out. Vaccination confers the only immunity. With reference to diphtheria, aside from the well-known sanitary precautions, the means for immunizing those who have been exposed to diphtheria is to inject an immunizing dose of diphtheria antitoxine into each person exposed. This will result in immunity of a month's duration or thereabout. This remedy is supplied by the State in California, and may be used boldly, without fear of evil results. The stipulation should be that it shall be used as soon as the diagnosis is verified. It is better to give the patient the benefit of the doubt and use the antitoxine early.

The relation of the physician to public health is in a measure forced by public opinion. Census reports and the means for the protection of the public health may be regarded as a fair test of modern civilization. When the individual begins to take precautions to preserve his health, he may be set down as suffering from some imprudence in the past. Communities or aggregations of individuals are measured by the same rule. Communities and cities where they reach civilization to a sufficient degree devise measures for obtaining good and sufficient water, and pure air. To obtain pure air, there must be a quick disposal of sewage.

When disease, by current rumor, is said to prevail in a certain locality more than in others, the physician is called upon to state a probable or known reason for its existence, and to suggest means, however imperfect and inadequate, to cause its abatement. Thus he is forced by the public to express an opinion, whether he desires to do so or not; for the

public invest him with a certain degree of superiority by reason of his real or fancied familiarity with the causes of disease. This leads the community to a tabulation of the causes of mortality, and the obtaining of the death-rate from any one or from all causes. Comparisons are instituted between localities and cities and States; between urban and suburban localities, and between those engaged in different pursuits, occupations, and callings, involving varied habits of life imposed by reason of such occupations. Upon such observations, public hygiene is founded. This is preventive or State medicine. The gathering of vital statistics is one of the labors involved in State medicine. On the reliability of the statistical information obtained from the medical profession depends the value of the work. The age, sex, occupation, and nativity of deceased, a full report of all births, and the registration of all marriages go to make up the vital statistics of a community. The efficiency of public health service must depend largely upon the relations which it holds to the general medical profession. There must be confidence in health officials from the profession, regardless of any political or other consideration, or their efforts cannot reach their desired plane. A certain coöperation or compliance on the part of the profession is necessary. In California, the physician is compelled to report deaths on blanks supplied for that purpose, and births on another, and a penalty, of not less than \$50 fine, for violation of the statute is imposed. Physicians do not hesitate to comply with the first, but openly violate the law with reference to reporting births. This violation of the law does not result from any personal hostility to health officials, but seems to emanate from a pecuniary consideration. They think they should be paid for it. Many medical men evince a determined hostility to municipal regulations requiring notification of the existence of contagious and infectious diseases, holding that such notification should be made by the householder. The strength of any such opposition to necessary rules and laws must be based on the idea that it is unjust for the State to exact services without remuneration. This idea is reinforced by the contention that the report of a birth requires no expert knowledge, but may be made as easily by the householder as by the physician. In those States where the registration of the physicians involves the granting of a license to practice, the State may demand a full report of death from the medical man last in attendance, without compensation. The State may demand more, the protection involved in his license by the law against unauthorized pretenders being in the nature of value received.

Much greater difficulties are presented in the matter of the compulsory notification of contagious and infectious diseases to the health office. The placing of a placard is done by the health authorities, but the notice is required of the physician who makes the diagnosis. Some physicians contend that such requirement is in the nature of an exaction of service without compensation. They consent to making an announcement of the diagnosis to the householder, whom they deem the proper person to report to the health office. It will be seen, however, that the report of the average householder would be unauthorized and hearsay. The matter of placing on the front door of a citizen a placard bearing the ominous words "smallpox," "diphtheria," "scarlatina," "cholera," or "yellow fever" is of too serious a nature to permit it to be done except under the ægis of authoritative notification by a qualified physician.

Otherwise, irreparable injury might be done by the playful malice of a vagabond whose vicious nature led him to denounce such person by a mendacious report. The compulsory notification by physicians must stand, even if, in a measure, unjust. Civilization is made up of restrictions, and the State is not asking too much when it requires a prompt notice of contagious and infectious diseases. The physician who cavils at reporting such cases, on cards supplied for that purpose, has a bent of mind that may enable him to prosper, but that unfits him for public service. He who never gives except when he receives an equivalent excites no admiration for his idiosyncrasy.

The problems of practical hygiene require special training and special knowledge on the part of those who have to deal with them. It is no self-disparagement to acknowledge a lack of precise knowledge on this or any other department of human knowledge. Physicians should and do seek to place capable and responsible men on local and State boards of health, and these legally constituted sanitary authorities receive the support from the profession which their public services justify. But the body of intelligent physicians in the municipality or the State is the tribunal by which the sanitary official is to be judged. The value of such judgment will depend largely on their appreciation of the peculiar difficulties with which health officials have to contend. The profession is thus largely accountable for the laches or incompetency of health officials. It is always in the power of the local board of health to appoint a vigorous and capable health officer. If they fail to do so, the public holds them responsible for the incompetency of the incumbent. If the health officials of the State or nation prove weak and incompetent to deal with public questions involving great interests, the profession of which they are members is held to a degree of responsibility which it cannot evade by a disclaimer of voice in their appointment to place. A member of a family may go wrong, but the entire family bears the burden of obloquy. It is therefore necessary that health officers should be chosen for their special fitness for the end to be attained, and that they should receive from the profession a full, free, and unreserved support in all well-defined endeavors to promote the public health. There are so few rewards for sanitary services that there need be no professional rivalry engendered. Public approbation of service in this department brings no increase in private practice. Public service is a destroyer of medical practice. There can be no reason, then, for a failure to approve and support health officials in the legitimate exercise of their public functions. This is often a thankless task, but, as a recognized department of a noble calling, we must accord to it that approval of the authority vested in it by the State, and hold it in honor and esteem as a member of our professional household, the daughter of medical science.

DR. W. W. STUDHAM, of Los Angeles: Mr. President, Ladies and Gentlemen, I did not expect to open the discussion on this paper. I was looking for one later on. I don't know that there is very much to be said in addition to what the Doctor has already outlined. I was very much interested in the paper, and have learned, I think, a good many things with reference to the question. I have been interested especially in the modes and methods which the paper has pointed out for the correction of a great many things which have occurred in the direct line of sanitation, so far as duties of health officers are concerned. In a great

many papers, in fact, in nearly all of them, we have methods laid down, but no method of a practical character which will enable any one to take hold of the subject and carry it out according to any special method which can be laid before the entire public. In order to get any method of sanitation into operation, it is necessary, to a greater or less extent, to cultivate the public mind up to the point where they will accept some things. In the direct line of the duties which devolve upon the health officer and his duties in a sanitary line—and it is necessary in a hygienic line as well—there is one of two ways it has to be done, and generally the second way is the way. It must be done according to law. There are certain laws for certain things, and people will argue those propositions with you in a way that the simple question just simply devolves upon complying with the law in the case. The public mind is not educated, but they simply think you are working a hardship. Following along on the line of the work, I think the Doctor has covered the subject thoroughly, and I have been more interested in what has been said than to prepare any remarks in the way of discussion.

MANUAL TRAINING AND HEALTH.

PROF. CHARLES H. KEYES, of Pasadena: I have no paper, so I have just a little the advantage of my brethren who are better prepared. I can stop when I think the danger point is reached.

Many years ago, as I went into the business of education, I determined that I would never lose an opportunity, not simply to attend conventions of educators, but also the conventions of men and women who were in distinctively different lines of activity; and as I look back over the years that have gone, I am constrained to confess that some of the greatest advantages, some of the best reinforcements that have come to my thoughts in my own line of work, have come from attending gatherings of members of other professions.

I congratulate myself that it has been my privilege to be here this evening to listen to the discussions that have taken place; to realize that the medical profession, at least, has come to the conclusion that it is time to turn the mind of scientific inquiry toward the normal body. In the nature of things in the development of medical science, the young man, and I may venture to say in this day the young woman, has her inquiry constantly upon the abnormal body. If there be any reason for the being of such organizations as the one under whose auspices we are gathered this evening; if there be any excuse for the discussion in public of such themes as I find upon this program; if there be any excuse for the presentation of such a theme as that announced for myself, it can only be that we have come to the conclusion that it is time now to give a little thought to the normal; that long enough the abnormal has absorbed our attention.

I am glad to feel, with my brother Bridge, that the medical profession realizes that it is necessary that this gospel of hygiene be preached by somebody who can speak as with the voice of authority, as only a man trained in the science and art of medicine can. You know that is an old, old story—that of the school teacher, and he wonders why in all these years of harping he has not accomplished anything.

The average schoolmaster, on the ventilation question, is in largely the condition of the ventilation crank of whom the story is told—perhaps you have all heard it, but I am going to inflict it again, because it turns my point. You remember the old fellow who was sure that the only thing that was needed to regenerate the world physically and morally was to get it in the way of breathing fresh air. He had been harping upon that subject with a young man who traveled with him across the continent, and they were stowed away in one of those stuffy bedrooms, which is worse than sleeping under the bed in that Pullman car, or on the top shelf, whichever one you may have. The old fellow, as they went to bed to occupy the same couch, complained about the condition of the atmosphere, and said, "We will have to have some fresh air, or I will die; get up and see if you can open the window." The young man groped around and tried here and there, and said, "I can't open a thing; everything is fastened down." He said, "Break a window, then." "But there is not anything to break it with." "Well, take my boot and break it." The young man seized the boot and approached the glass and banged away, and the old man said, "There, that is something like it; now, I can sleep." He slept the sleep of the blissful, and the next morning he awoke to find a piece of furniture, or something like that, standing in the corner of the room up against the front wall, with one glass broken out. The average schoolmaster is just such a crank as that.

In every profession, men get credit for a great many things they don't know, and, if you will pardon me, you of the medical profession get a large credit for some things you don't know as well as for the great many things you do know. Whether you know it or not, the laity conclude that you know all about this business of hygiene, that you know all about the real value of ventilation, of hygienic exercise and practice. You know how far that is wide of the fact, or how accurate it is, but that is immaterial to the point that I desire to make. As long as it is in the public mind that you are vested with the only voice of authority on this question, there devolves upon you the duty of reinforcing this lesson, not simply in State medical conventions, but among the laity. The men and women who come to you with weakly, broken-down bodies are not the only ones who need to learn this lesson; but, in the interest of humanity, whose mission it is your duty to serve, this gospel should be preached by the physician who believes the upbuilding of a noble race of men and women to be a part of his calling.

I was glad to know that my friends who preceded me were all agreed that in this matter—and you may wonder where the medical training in health comes in, but it is coming right along—it was high time that in education there must be some attention paid to training bodies. We have harped on those old truisms about the healthy mind and the healthy body so long that it has become absolute cant, but in practice we have no faith in it at all; and we are beginning to cant in education. Let me illustrate. You hear everywhere that the business of education is to train young men and women to govern themselves, to be self-governing citizens. Now stop, friends, and ask yourselves, what is the one place where a young man is never permitted to govern himself? It is in school. It is the only place. Yet we teachers and citizens say we believe that is the mission of the school. That is all cant. We don't believe in it yet. We think we do, and by and by we will come to

believe in it. We will have the courage to practice according to our faith. Right opposite that cant I put this other one: We have been saying we believe in sound minds as being possible only in healthy bodies, and we have absolutely ignored all training of bodies. While there is a little bit of gymnastics for relief, or because it is the fad to talk about gymnasiums in schools, how many people are ready to go down in their pockets and provide the money for the only intelligent gymnasiums that ought to be connected with the school—a gymnasium that has at its head a man who is able to take account of stock? What would we think of a teacher who undertook to teach mathematics who could not, when his class came to him, take an account of stock on hand and discover what they knew about algebra or trigonometry or the calculus? The first thing to do is to find the exact condition in which he finds that class. It is not the theory that he is troubled with, but the exact condition that confronts him so far as the mathematical condition of that class is concerned.

*A gymnasium is worse than dangerous if it is managed without somebody at its head who is able to see just exactly what is the condition. What may be my boy's meat may be your boy's poison. What may be good for this girl may be utterly destructive of the other girl. I have said, when I have gone about this country trying to find some man who would go down in his pocket, when he asked me what kind of a gymnasium I wanted, "I want no gymnasium until I can have the wherewithal to pay a man or woman, or a man and woman, who shall take every young man or young woman who comes to that gymnasium and make a thorough physical examination"—and just here will you pardon me, and I speak as a layman, if I undertake to make a suggestion to you, learned in your calling, of how you can help my calling, how you can help humanity?

In the day when psychology was the science that hung up there in the clouds; the science at whose altar men could only worship when they got away up in the mists; when it was metaphysics, whether Scotch or German metaphysics; the physician who had to deal with real things said psychology. But psychology has been born anew within the last fifteen or twenty years. There is a science which recognizes that our friend is speaking in the language of science that men mistake a torpid liver for a quickened conscience. There is now a realization that it is all folly to set in operation a mind independent of the body in which it resides. It is equal folly to talk about attaining the best results in the treatment of broken bodies without recognizing that those broken bodies are constantly dominated and interfered with by worried minds. The medical course of the future must give more attention to psychology, to that psychology which bears the interminable name of physiological psychology, the only psychology that is ever to live, and the only psychology that could have lived, and I hope that the day is coming when every physician will not only know upon what plan a boy is built, muscularly, anatomically, generally what his nervous system is as it is put up, but also that he will recognize that "the highest study of mankind is man." I want the physician of the future to know boys infinitely better than I hope to know them. He ought to know them as much better than he knows them to-day as the average teacher knows them better than the average good physician. I look back to the day when the preachers where the physicians and teachers. It was not a bad combination. It

may not be needed in your business, but I tell you the man or woman who is to train the young must by and by be a man who can draw upon all those springs of knowledge, and until that day comes, if we are to do wisely in the matter of educating young people, it must be because you will keep your eye on us and stand ready to help us in this matter, and because you yourselves will recognize that not only must medicine be studied, not only must hygiene be studied, but also humanity must be studied, and humanity in its normal as well as in its abnormal.

Speaking of the class of abnormals, we were told that at Glen Ellen it was noticeable that they did not walk well. I always say to men and women who are anxious to know more about the business of teaching, "You ought never to fail to improve a chance to visit a fool school." The best educational clinic in the world is a well-conducted fool school. If you go into one of them, what is about the first thing you find them doing? Here is this contrivance that you call a ladder, and the boy comes in so bereft of intellect, or with an intellect so undeveloped, that he cannot speak. He shuffles his feet, and they have him step over this ladder that is laid down there. What does it all mean? That science has discovered that there is such a close connection between the defective intellect and the bungling, clumsy, weakly motor energy that we discover it in another way: manual training came that way. Every child who is off-color intellectually will display it more quickly in his defective motor activities, in his defects of muscular application, than he will in other ways. To put it more completely, the boy who is a little off-color intellectually, who is not quite up to the standard, may get through the class in English, or may get through the class in geography, and not disclose it half as quickly as he will in the workshop of the manual training school. In the course of the last five or six years it has been my privilege to see ten or twelve hundred boys go into the manual training school. Among that number there come to my mind five or six of whom the fact is, whether it be charitable or not, they were under the average in point of intelligence; and I take it they were sent to us with the feeling that the ordinary school had no opportunity for drawing out anything, if there was anything in those young souls, and that possibly the manual training school might do it. The reports of the defects in intellectual makeup would come more quickly from the teachers in the manual processes than they would come from teachers in geography or English, or history, even; and the boy who was so close to the line that it took a year of study to determine whether it was true that he was a little under the normal, gave the most certain evidence in the manual training processes. In other words, motor activities disclose the abnormality, weakness of intellect, quicker than the traditional processes of the school-room. But it is not on this score that it seems to me that the claim of the manual training school as a health-reinforcing agent must be made. Everybody realizes that a condition of health is one that means a condition of functional activity; that means exercise. The worst kind of exercise is the exercise that is taken for exercise's sake. When the man goes out and takes a walk for the sake of walking, with the conviction that he needs it for exercise, compare the results with the fellow who goes out and walks because he is after a gray squirrel that he is going to shoot; he has no thought of the walk, but he is out to shoot squirrels. And the man who

gets into his shell and rows just because he needs exercise, compare the result—and that may be a good result—with the work of the man who gets into his boat and rows up the river to meet a friend or goes upon the river with some other definite purpose in mind than merely getting exercise out of the rowing. Compare, if you please, with all its vices, the consequences of legitimate football—there is such a thing as legitimate football—with mere standing and hammering a bag for the sake of exercise. Anybody who has ever been through it knows that the one not only gives muscle, power, and grace, but it also gives moral health; and, gentlemen, you know that there is a lack of health that is not disclosed to either the biologist or the physician, unless the physician is not only biologist but also a student of the mind as well.

Any exercise, then, to be of the best value, must not be taken for the sake of the exercise. The exercise must not be an end in itself, but simply an incident. Any exercise to be most beneficial must be regularly and systematically taken. Now, you know how hard it is for you who may appreciate the value of exercise to make the good resolution that you will take your exercise regularly, and do it, unless you are wise enough to hedge yourself in by making your exercise an incident to some pursuit that is a passion with you, some pursuit that is a delight.

If I may turn to a personal illustration: I overheard two men say, when I was seventeen years old, while I lay on the hay up in the loft—it was the day after commencement at the academy, and I was getting ready to go to college. Those men had come over to commencement in the academy, and they had gone out to look at the horses in the barn; they were visiting at the house, being friends of the family, and they deplored the fact that my father, a poor man with five boys to rear, should spend his money to educate his boy and fit him for a walnut overcoat. I remember the peculiar expression. They said “Look at him; he is six feet two inches tall; he weighs one hundred and fifteen pounds; he is round-shouldered as a bed-bug, and he is hollow-chested, and he is squeaky-voiced; we will come back and bury him within a year.” I tell you, *Les Misérables*, which I was reading, had no more charm for me that afternoon. I was thoroughly frightened. I did not know what to do. I did not want to tell my father and mother about it; I did not dare to go to the doctor about it, and in despair I said, “Well, if I am going to die, I am going to have a right good time while I am here.” And what do you think I picked out as the means of having a good time? I said, “I am going to play all the baseball that I can.” I had begun to like it a little, then; and I took to baseball as the average man does to brandy to drown his sorrows in oblivion, and the baseball led to a little rowing and boating, until it came to pursuing athletic sports as a passion, because they gave me delight. I know that no gymnasium in the world, and no physician at the head of it, could ever have done for me in three years what the pursuit of athletics—it happened that I had some wise guidance in it—did. But I did not take my exercise for the sake of exercise. That is the trouble with the average gymnasium. Until we turn our attention to getting such material and processes into the gymnasium that we can put the fun of it in the boy’s mind, and not have him do something because he is a little weak there or ought to be brought out here, and do it as he takes a dose of medicine, let us dis-

cover that, and not tell him, "Do this because you are weak in the back," but try to put a zest into it.

A friend of mine says the summation of good teaching is to say, "Johnny, there is something interesting; go for it," and if you say that so eloquently that Johnny does go for it, you have done the highest teaching in the world. And so in our gymnasiums we must do that.

The manual training school in this home class first of all sends the young man to a given business at a certain hour every day, and keeps him at it regularly. This matter of systematic exercise is settled every day in the year. In the next place, it is taking all notion of exercise out. The young man or young woman enters the shop, or laboratory, or study, with no thought that he or she is going for exercise; but if the exercise is rightly planned—and oh, we have a mighty struggle in this day when people think of manual training here as solely a means of putting a little bit of dexterity into a hand whereby a boy may a little easier earn a better living! I say education is a good thing, but trained education for the masses must be more than that. We have no right to take your boy and put him into a school that you call a manual training school and give him a trade before you have discovered him—before he has discovered himself. Manual training for the masses must be justified on some higher grounds, and one of the higher grounds will be as a sanitary measure. It is going to give him regular and systematic exercise. It must give him exercise that is planned with reference to the fact that he has a two-sided body, with a right side and a left side to it; and any manual training that simply develops that side and that arm, and forgets this hand and this side, is no manual training that can justify itself with the great masses of people in all stages and conditions of society here in America. But, best of all, is the fact that it conceals the purpose so far as the sanitary effect is concerned. It is the highest art, Horace tells us, to conceal our art. It is when this man so walks the boards that he forgets that he is Edwin Booth, American playwright, whose business it is to thrill these audiences, whose business it is to find the evidence of that in the fat box-office receipts; when he becomes so thoroughly imbued with the character he presents that not Edwin Booth, but the gloomy Prince of Denmark walks the board; then it is that the climax of his art is disclosed. And so it is in everything. The highest purpose of any art is obtained when the purpose of the art is not displayed. With reference to health, it gives him the exercise and it conceals the purpose. If you were to ask the two or three hundred boys and girls who constitute the student body at Throop how many of them were compelled to take exercise, "Do they compel you to take any gymnastics?" they will tell you—and we are sorry to have to admit that we have not money enough for a gymnasium, and we have not it. It is not because we do not appreciate it—they would say, "No; we have no exercise to take." But, friends, do you know we cannot get a football team or a baseball team to live and flourish, and I don't know why. I am not so old yet but I can play baseball or football, and I love it just as well as I did when I was eighteen; and when my boys do play I go with them, not as a matter of duty solely. I have not to screw myself up to a very high plane of duty to go out and watch the boys, but I go because I enjoy it and because I have a good time; and with all that kind of encouragement from a man who is as brimful of interest and enthusiasm

in them as I am, I sometimes wonder why I cannot make those things live, but I have come to the conclusion why. I know that boys cannot be decently educated without intense athletics, vigorous athletics. This nice, grace-begetting business that we have presented as gymnastics so many times may do for weaklings and young children and girls, but boys from twelve to eighteen years of age need vigorous athletics if you are going to have clean, moral men. If you are going to have men to whom social purity will mean anything; if you are going to have men to whom personal cleanliness will mean anything, you want vigorous athletics. I have come to the conclusion that we have given our boy the vigorous athletics in the shop, and when he has swung that hammer and worked at those machines and put in his hour and a half every day for a week, he is not as brimful of the desire to get out and kick something as the boy who has been on the benches all day long. In this day when we find even physicians ready to cry out against football with all its abuses—and there are a thousand of them—I wish they knew a greater abuse than football. I wish they knew how great a crime it is to keep a growing boy in the average school-room processes from nine in the morning until four in the afternoon. I wish they would stand up, before they protest against football, in which the boy does kick out some of the criminality that has been stewed into him during those long hours of confinement, and say, "Let us cut the school day right in two, if we cannot have some manual training in it; if we cannot have some intelligently managed gymnastics that will take an hour and a half off of the school day, let us cut it in two," and what will be the result? We will do more for our boys in one half-day of intense, intelligent teaching, if we turn them loose the other half, than we will under the present condition. And when you shall give him the one half of the present school day, with intense, intelligent, vigorous teaching, and give him the other half in the gymnasium that you gentlemen have pictured to-night—in the gymnasium that ought to be the attachment of every school in the land—it will be no paradox that he will master more in every one of those half-days given to the traditional subjects of the school than to-day he is mastering in the whole day.

You know that a given line of exercise that may be for the development of this muscle may be continued a given number of times, each time adding the new strength that is being put in; but there comes a time when that push doesn't put in any more vigor, but tears down something that you had before, and you can go on until the exercise will tear down and destroy all that it built up at first. The same thing is true of the processes of the school-room to-day. When they talk about not having money for gymnasiums, we had better spend less money on fewer hours of service in the traditional lines and have some money for these gymnasiums. The child that grows up a good-natured, healthy, sweet-tempered ignoramus will make a safer citizen for California than one who grows up with his head full of theories, with all the wisdom of the pedant or the philosopher, and the crippled, broken body, in which there is found that torpid liver that he almost invariably does mistake for an enlightened conscience.

I am one of those who believe that this matter of sanitation is so important that I would very highly value a law that would compel my friend Southard, and others like him, to give of their time to the public by going into the schools and examining the eyes of every child who

goes there. How many of us stop to realize that a very large percentage of the children in this country who have weak eyes and defective eyes at fifteen or sixteen years of age have them solely through our neglect in this line. A boy goes into a school with a good right eye and a good left eye, but they were not mates. That is not remarkable. We don't think it strange, for you and I have a pair of feet that are not mates, or a pair of hands that are not mates, or arms that are not mates. I suppose, in the strict sense of the term there is not a man here who has a pair of hands that are mates. You physicians could come nearer it than most people. That hand is worth half a dozen of this one, as the average man is put up, and we think it strange that any one should suggest that eyes are not mates. Here is a right eye that is focused here, and another one there, and you try to work them both together, and what is the result. By and by you have a pair of eyes that are mates, but neither one is good for anything. You had two good eyes, not mates, at first, and you have two perfectly mated, and both are bad. The physical faculty that we use more than any other is the visual faculty.

I recognize that my theme was manual training and sanitation. Our friend, the President, could put his hand down there on something, and it will tell him more than my eyes and both my hands will tell me. What has he been doing? He has been educating that hand of his. His profession has exploded the old fallacy that men learn of the outside world chiefly through the eyes. He has been taught that it was that wonderful faculty that educated the eye to begin with, and for him his hand is another pair of eyes. The manual training school says that not simply the physician is entitled to this kind of training, but also every boy should have that other pair of eyes that will come through education of the hand. And so your theme and our theme are the same. Manual training is a plea, not for just one-sided education, but for an all-round, symmetrical education which recognizes that it must be given to a soul, to an intellect, to a mind, to a spirit that is resident in the body. All the faculties ought to be developed—and, friends, I might just as well stop here as anywhere. I am brimful of this gospel, not simply to talk it, but to work it; and I am one of those who believe that the State of California is better situated than any other State in the Union to make manual training a part of her educational system, solely because she realizes that it is her mission to raise, not only the best horses that are grown in the world, but also the sons and daughters that shall make the noblest men and purest women that the sun shines upon. As a means to this end, she must turn her attention to educating, not only the minds, not only drawing out and developing intellects, not only giving them mere lessons in preachment about ethics and morality, but also by remembering that if you make a man sick you make him a villain; that there is no kind of intellectual teaching or moral preaching or system of ethics that will make a safe citizenship unless it builds it upon sound bodily vigor; and this, I believe, so far as schools are concerned, can come only or largely through the incorporation of systematic educational gymnastics and educational, justifiable manual training into our systems; and I know this is never going to come through the endeavor solely of those who thoroughly comprehend the value of manual training, unless they have the reinforcement of a body of men who are

competent to speak upon it, and that is the physicians of this State of California.

I deem it a proud day in our history when we are able to look over this State and find money being diverted to these charities, to find that we have a Lick School; that some Californian had it in his heart to give the money for that, and that we have a Cogswell, a Wilmerding, and a Throop. And may their name be legion, and in a greater way may the name be legion of those who will see the necessity of providing these schools for the youth, not simply of a few sections, but of providing this opportunity in some degree for the many in every city and town throughout the State of California.

THE PRESIDENT: It is fortunate for us that we have a stenographic report of all of our proceedings; and, as your presiding officer, and as a member of your State Board of Health, it affords me pleasure to know that the address to which we have just listened will appear in full in our published transactions.

The next thing on the program is the "Report on Antitoxine."

That will be referred, as it is now a quarter to eleven.

REPORT ON DIPHTHERIA ANTITOXINE.

By DR. J. H. DAVISSON, President of the California State Board of Health.

It is not the purpose of this brief paper to discuss the various theories of immunity; nor to give the rationale of serum-therapy; nor, indeed, to enter the domain of the bacteriologist, but rather to deal with the business side of the question officially.

Prior to January, 1895, there had been but little diphtheria antitoxine used in California, for various and obvious reasons. It was an innovation in medicine, and a new and unfamiliar remedy, which was, for the most part, imported from Germany and France, as it was not prepared in America for the trade, except in New York in small quantities. From the nature of the remedy it was subject to changes incident to keeping and handling by those unfamiliar with it; and also subjected to extremes of temperature and decomposition in transit, to say nothing of imitations, etc. It was also a matter of commerce and, often, speculation—being sold at fabulous prices without any sort of security against dangers or failures due to the circumstances above mentioned. The introduction of 10 c.c., or two fluid drachms, of the serum of the horse, previously immunized with toxins of diphtheria, into a child by the hypodermic method, is, to say the least, heroic. Many cases of diphtheria are among the poor, as in poverty we generally have conditions favorable to its development and spread; and if the new remedy could have been had, who would volunteer to pay \$4 or \$5 per dose for it?

These and many other considerations induced us to formulate and propose a plan to overcome all these hindrances—believing it had passed the experimental stage—and thus place a remedy, which promised so much for the dread disease, within reach of all and deprived of the many uncertainties above mentioned. We proposed to take the business out of the hands of the trade and place it in the hands of the California State Board of Health; and at the January, 1895, meeting at Sacra-

mento our plan was adopted, and a bill prepared and presented to the State Legislature, then near the end of the session, asking for an appropriation of \$6,000 to procure or prepare diphtheria antitoxine for free distribution throughout the State for the next two years, under the direction of the State Board of Health. That the bill passed immediately attests the intelligence and humane character of the last Legislature. The bill was so worded that we might prepare antitoxine in one of the scientific departments of the State University at Berkeley; but, by the time we were in shape to use the appropriation, other plants or laboratories in this country began the preparation of the remedy, and although we have a Department of Biology and also a Veterinary Department and apparatus, yet we could purchase it of reliable laboratories cheaper than we could prepare it.

Thus the State of California was the first in the Union to take such advanced grounds on this important matter, and some time afterwards the classical State Board of Health of Massachusetts, which has done much for sanitary science, adopted our plan, except that the well-to-do are compelled to pay for the antitoxine. Later, the New York City Board of Health did likewise, and December 15, 1895, as diphtheria was prevalent in Brooklyn, N. Y., and on account of the fatality and the then limited use of antitoxine, the Board of Health, through its Commissioner, issued a circular to the profession of Brooklyn, agreeing to furnish antitoxine to those who would use it and make clinical returns of its use. Other cities now furnish it to dispensaries and the poor on similar conditions.

We divided the State into five districts for convenience of distribution, and established a depot of supply in each district, which is in full charge of the resident member of the State Board; and to facilitate its use, we purchased a dozen antitoxine syringes of the latest pattern, and placed several at the disposal of each depot, for the benefit of those who had no suitable syringe for antitoxine. Thus we have placed, gratis, reliable antitoxine at the disposal of every licensed physician of any school, and only require clinical returns of cases treated, that we may have statistics from our own physicians in our own State—as by many conservative physicians serum-therapy is yet considered *sub judice*.

The serum, which is, from its nature, perishable if not properly handled, can be kept almost indefinitely in cold storage, where we have been keeping it for more than a year, during which time we several times ran out of the fresh product, and then used up the old stock, which had been prepared for many months, with good results.

In looking backward over more than a year's trial of our plan, we are more than satisfied with results. Much of the prejudice against it has subsided, and physicians of all schools are using it; but, unfortunately, as yet there are no facilities or provisions for bacteriologic examinations by the State or by municipalities in California. We also regret to say that, although we have given this matter much time, and have spared no pains in giving detailed instructions in regard to antitoxine and its technique (and the Board has insisted on clinical reports), we have been disappointed that physicians have been so tardy in making prompt returns in so important a matter at this time.

Since the acceptance of this new remedy by most members of our profession, and the logic of "brutal figures" converted the renowned Virchow to antitoxine treatment, and notwithstanding the accumulated

statistics from reliable sources from almost every civilized country, there still remains much opposition among those less informed—as a rule; but almost every country is led on in the fight against it, by some eminent leader. Germany has its opponents, and still it furnishes remarkable statistics which attest its value. Perhaps the greatest exponent of the opposition to-day is Lennox Browne, of London, who has recently written a new book on “Diphtheria and its Associates,” and has considered and condemned diphtheria antitoxine in an appendix. Among other things he says: “The reasons for considering this subject in an appendix hardly need detailed explanation. Serum treatment is said to be still on trial, and on this account, as well as in the facts to be recorded, we do not feel justified in giving it a position as an integral portion of the older, well-tried, and well-established methods of classical treatment of diphtheria.” He contends that it does not reduce the death-rate, and declares that there are more fatal accidents, complications, and sequelæ than under other methods of treatment. The great English specialist hears an echo to his views and opinions from America in the person of Dr. Winters, and others equally well informed; but to me this is not as strange as to meet those who oppose vaccination as a protection against smallpox.

To look at the other side of the question, we are confronted with most convincing statistics. At the 1895 meeting of the British Medical Association, statistics were presented from the hospitals of England, Scotland, Munich, Berlin, and New York, showing uniform and great reduction of mortality under antitoxine. French statistics show 65.6 per cent decrease in mortality in the latter half of 1895, and that 15,000 lives are saved annually by serum-therapy. Berlin statistics give 4,391 patients in private practice, with a death-rate of 7.9 per cent; 1,442 in hospitals, with a death-rate of 14.6 per cent; total, 5,833, mortality (with antitoxine) 9.6 per cent. Welch, of Johns Hopkins University, has collected 7,166 cases (treated with antitoxine) from various sources, and shows a mortality of 17.3 per cent, as against 42 per cent under former methods of treatment. The Medical Record of March 7, 1896, reports 629 cases of diphtheria treated in Chicago with serum, with a mortality of 6 per cent, and none where injection was given within twenty-four hours of development; and of 437 persons immunized (after exposure), none of whom contracted the disease.

Most of the antitoxine used in California is made in this country; and after considerable investigation and trials of the German and French preparation, we are giving our preference to the American production; and most of the antitoxine used by the Board is from the laboratory of Parke, Davis & Co. The American product is put up in better form for transportation and handling, which of itself is an important item. The stronger preparations of antitoxine are the best, and the average curative dose is (when administered early) 1,000 units (Behring's standard), and in severe cases, or adults, or advanced cases, or croup, 1,500 units should be given; and these doses may be repeated every twelve to twenty-four hours till 5,000 or 6,000 units are given in a single case. Two hundred units is an average immunizing dose. The usual anti-septic precautions should be observed, and no more care is required in the administration of antitoxine than in other “up to date” procedures in medicine and surgery. The injection should be made under the skin in the cellular tissue, and not into the muscular tissue, and over the

chest, sides, or back, according to circumstances; but, the dose being large, there is often considerable reaction and soreness at the site of the injection, which interferes with movements or handling for a day or two. For immunizing, an ordinary hypodermic syringe may be used, and the deltoid region is best, as it ordinarily is, for all injections for any purpose.

Kitisato has long since used and commends a much stronger serum than has been in general use; and it does seem desirable to diminish the amount of the horse serum, as it is irritating; and by giving 5 c.c. of a stronger antitoxine, rather than 10 c.c., as now in general use, the best result is obtained.

The New York City Board of Health issued a circular, February 11, 1896, stating that "as a result of investigations in the bacteriological laboratory, they had improved on former methods of production of antitoxine," and are now prepared to supply five grades of diphtheria antitoxine for use (in the city), as follows:

No. 3,	vials 10 c.c.,	1,500 units (Behring's Standard).
No. 3A,	vials 5 c.c.,	750 units (Behring's Standard).
No. 4,	vials 5 c.c.,	1,000 units (Behring's Standard).
No. 5,	vials 5 c.c.,	1,500 units (Behring's Standard).
No. 6,	vials 5 c.c.,	2,000 units (Behring's Standard).

The bacteriological laboratory of Parke, Davis & Co. has been working independently on the same lines, and is now prepared to furnish much stronger serum. March 14th they bled six horses, which had been pushed for the purpose, and a careful test showed the following results:

Horse No. 1,	10 c.c.,	2,500 units (Behring's Standard).
Horse No. 3,	10 c.c.,	2,000 units (Behring's Standard).
Horse No. 5,	10 c.c.,	3,000 units (Behring's Standard).
Horse No. 10,	10 c.c.,	2,000 units (Behring's Standard).
Horse No. 15,	10 c.c.,	1,000 units (Behring's Standard).
Horse No. 20,	10 c.c.,	1,000 units (Behring's Standard).

Thus, 5 c.c. of No. 1 is 1,250 units; 5 c.c. of No. 3 is 1,000 units; 5 c.c. of No. 5 is 1,500 units; which gives a strong serum with a minimum dose.

After again pushing the injections of toxine, the same six horses were again bled April 7, 1896, with a view of preparing a stronger serum.

They also "experimented with a view of finding out what a mixture of the different serums will yield; whether we can expect to get, in 10 c.c. of a mixture of the serums taken from these, an antitoxine which will be stronger in proportion to the individual strength of each serum tested." We are promised a few bottles of this stronger serum from Parke, Davis & Co., in 5 c.c. vials, with a view of testing the same.

Roux, in his work at the Children's Hospital, in Paris, found most of the fatal cases, or failures of antitoxine, due to mixed infection; mortality being 7.5 per cent in cases where the diphtheria bacillus was found alone, as against 34 per cent when associated with streptococci; hence, the double antitoxine is now offered by the New York Pasteur and Vaccinal Institute, which requires a year's time to immunize the horse against the streptococcus.

Stokes (in the Boston Medical and Surgical Journal) states that "bacteriologic examinations of nine fatal (apparently) uncomplicated cases of diphtheria treated with antitoxine disclosed the streptococcus in the liver, spleen, kidney, and heart's blood in five; in one in the

spleen. The pneumococcus was found twice in the kidney, and one of these streptococci was in the spleen; in one case, the bacillus coli communis only. In the lungs of all were found the bacillus of diphtheria, streptococci, pneumococci, and staphylococcus pyogenes aureus, either alone or in combination. The bacillus diphtheria was found in the kidneys in four, and once in the heart, and once in the spleen."

There has been expended in the distribution of antitoxine throughout the State, \$1,451 69, and we have about \$100 worth of antitoxine on hand at the five stations. The Los Angeles depot has distributed 284 bottles of diphtheria antitoxine—17 vials of the German preparation and 267 from Parke, Davis & Co., all of 10 c.c. to the vial; 86 vials of 600 units; 125 of 1,000 units; and 73 vials of 1,500 units (Behring's standard). We have received clinical reports from more than fifty physicians who have used antitoxine in California—most of these from the Los Angeles district, where diphtheria antitoxine is more generally used than in any other section of the State. Although we had hoped to be able to give complete statistics, yet these reports indicate the great value of the remedy, as it has been uniformly successful for immunizing, and there have been no deaths where antitoxine was used within twenty-four or thirty-six hours, and the three or four deaths reported have occurred in cases where the antitoxine was not used for four or five days, to even ten days. A single dose was given in a large majority of cases, and if given early it is sufficient; but I have given 5,000 units in a single case, where the disease had been running five days, with good recovery, excepting slight paralysis, which soon disappeared without treatment. In many cases the use of antitoxine is followed within a week with urticaria, which is uncomfortable, but soon subsides, even without treatment.

In considerable personal experience with, and observation of, its use, I have seen no accidents nor bad results from the use of diphtheria antitoxine, and would advise its universal use, both for immunizing and for treatment.

DR. W. F. SOUTHARD, of San Francisco: There is one word that ought to be said in regard to this address which has just been given us by Professor Keyes, and it is this: That in the first place, the Society ought to pass a vote of thanks, because it is a subject that ought to come home to us all, this very line of thought which the Professor has given us. Preventive medicine, which this Society is engaged in, is one of the most glorious things connected with medicine. It beats all the prescribing of drugs that can be dreamed of, and to prevent disease is a great thing. The future of our race, the future of our country, depends upon how we shall bring up the children, the boys and girls, and bring them up correctly.

I have had the privilege of meeting teachers in this section quite a number of times, and I know the interest which they have taken in all these subjects, and every year it becomes more and more apparent that there is a closer connection being brought about between the educators on the one side and the physicians upon the other; that they are looking to the physicians to give them a certain amount of knowledge which will help them in their work, and we are looking to them to show us more about the mental development of children, and so on. I think that all this should be taken into consideration by the physicians; that

these subjects are so mingled that you can't separate one from the other and let it stand out as an entity by itself.

The progress which has taken place is very remarkable, and any one who feels a little discouraged, I think if he will let his mind go back a few years can take courage. I remember myself that about twenty-three years ago I attempted to find some books on the subject of hygiene, and I ransacked the largest book-stores in Boston, and sent to New York, and but one copy of any work treating exclusively of hygiene in any way, shape, or manner, could be gotten, and that was an English book which at that time was out of print. It was a very small book of probably one hundred and fifty or two hundred pages. Within the last twenty years the subject has become so wonderfully broadened that everybody has taken an interest in it from various points of view, and now we have at least half a dozen journals devoted entirely to different branches of dietetics and various things—hygiene and all that sort of thing—and a number of volumes have been written on different subjects; and for that reason it is that we can take courage for the future in looking back over the last ten or fifteen years.

I think, in the might of the magnificent address which has been given us, which will give us a great deal of food to think about when we go home, that it would well become us to give a vote of thanks for this admirable address.

(Motion made, seconded, and carried unanimously.)

ANTHRAX, AND ITS SANITARY RELATIONS.

By R. T. WHITTLESEY, D.V.S., of Los Angeles.

Bacteridian anthrax is the most ancient infectious disease of animals that is known. Moses, in the book of Exodus, speaks of a murrain that affected all the animals of the Egyptians of whatever kind.

Diseases spoken of by Homer, Plutarch, Dionysius, and others of the old writers, were probably no other than anthrax.

Lucretia (428 B. C.) designated it *ignis sacer*; Columella gave it the name of malignant pustule. Virgil described a disease of the sheep, which was transmitted to man by contact of furs, wool, and cadavers, and produced in the integument ulcerating lesions, which extended to the muscles.

The Arabians knew it under the name of Persian fire. Mezenay (966 A. D.) called it St. Anthony's fire.

In the latter part of the fifteenth century, the Senate of Venice prohibited, under penalty of capital punishment, the offering for sale of any meat coming from cattle with anthrax.

In 1617, Athanasius Kischner gave the description of a disease of the bovines, which was transmissible to man, and which killed sixty thousand people.

It is first noted in Germany and Hungary in 1712; in Poland, Silesia, and Saxony, in 1726; in France, in 1731. It invaded Franconia in 1755 to 1761; Finland and Russia, 1758 and 1759; Guadeloupe, 1774.

Chabert, in 1780, has shown that the different forms of anthrax constitute one and the same disease. Kausch, in 1805, gave a good description, but did not recognize its contagiousness.

Anthrax of sheep was well studied by Delaford and Gerlach in 1845; and while Delaford did not believe in its contagiousness, Gerlach demonstrated it experimentally.

In 1850, Heussinger published a work on anthrax, in which he considers it a malarial neurosis. In 1855, Pollinder announced that he had found in the blood of bovines affected with anthrax a quantity of little sticks; these were seen by Davaine in 1850, and Dorpat in 1857. Cohn was the first who considered the little sticks bacilli, and suspected their sporification.

Koch has enlightened us upon the development of spores and their transformation into bacilli.

Preventive inoculation was discovered by Toussaint, and later matured by Pasteur.

The bacteria appear in the living organism, in the form of straight rods, cylindrical and immobile, the extremities distinctly marked, and, in general, their length is about double the diameter of a red-blood corpuscle. They are found in all the tissues of cadavers affected by anthrax, but are more plentiful in the spleen.

The biology of anthrax I shall not go into, as it would take a paper many times my limit, and can readily be found in many text-books. And I wish to give you information, derived from many sources, not readily attainable by the practicing physician.

Anthrax is most common in the ox and sheep; the carnivora are rarely affected.

In relation to their susceptibility, animals may be classified in the following order: ox, sheep, goat, horse, stag, antelope, deer, and camel. Certain sheep in Algiers are completely immune from any inoculation with anthrax. Pasteur made many experiments, trying to convey this immunity by breeding and various other ways, but all were failures.

Fish and amphibia are hardly affected by it. Well-fed animals are predisposed to it. Newly imported animals are more susceptible than acclimated subjects. A first infection confers partial immunity.

Anthrax is very prevalent throughout Great Britain; in Scotland, it is called Braxy, and I am informed that the Highlanders eat sheep dead from it, with impunity.

From the report of the Veterinary Department of Great Britain, I copy the following: "From remote times anthrax must have existed in this kingdom, but no restrictive measures were adopted until 1886, when it came under the provisions of the Contagious Diseases Acts. Of the origin of anthrax nothing is known, but of its antiquity no doubt can be entertained, and there is nothing to justify a hope that it will ever be extinguished." In 1886 strict measures were adopted regulating the movements of animals from premises on which anthrax had broken out, the cleansing of the premises, and the disposal of the carcasses. It says further, that, "So far as it is possible to judge from returns of cases of anthrax in farm stock, the regulations which have been in force since 1886 have done little or nothing to check the disease. In fact, in 1892 we had a larger number of counties affected and considerably more animals attacked than at any period since 1886." In 1892 a slaughtering ordinance was adopted, and in the instructions to local authorities, occurs the following important item: "Avoid, as far as possible, effusion of blood in slaughtering diseased animals, or when providing for the destruction of their carcasses; burial of uncut carcasses with a sufficient

covering of quicklime is the most simple and effective method of disposing of them. The organisms soon die when access of air is prevented, but when the carcasses are destroyed by burning or boiling it is generally necessary to cut them in pieces, which is not only dangerous to the persons employed, but also is calculated to spread the disease, unless the utmost precaution is observed."

The first outbreak in Australia occurred in Cumberland County, New South Wales, from which it took the name it is now known by throughout Australia, "the Cumberland disease." The ravages became so great that a commission was appointed in 1851 to investigate its nature. In 1888, Pasteur's agents went to Australia to deal with the rabbit plague, and were induced to investigate the disease. An attenuated virus was procured, and a number of public and official experiments were made upon sheep. After giving the subject the fullest consideration, the official board reported that they were unanimously of the opinion that the efficacy of Pasteur's vaccine of anthrax as a preventive against the disease had been demonstrated, and they recommended its adoption and use.

In the United States, the disease exists in nearly all parts, to a greater or less degree.

In the report of the Committee on Diseases, read before the United States Veterinary Medical Association last year, anthrax was reported from nearly every State and Territory.

In August, 1892, an outbreak occurred in Delaware that was very mysterious in its origin, as it was on farms where it had never been known before, and situated on the highest land in that section of the State. During the outbreak ten farms were affected; forty cattle and nine horses died, and four men contracted the disease, but recovered. The Delaware Experiment Station investigated the cause, and came to the conclusion that it had been caused in a most peculiar way.

Goat-skins are imported from South America, South Africa, Asia, and other countries by the Morocco tanneries. The farmers for several years have been impressed with the value of the hair and scrapings from the tanneries, as a fertilizer, and the supposition is that in that way the anthrax germs were spread on the soil, and in one instance these germs were believed to have been carried for over a mile on the boots of a farmer, who had been helping a neighbor examine a dead animal.

In 1895, an outbreak occurred in New Jersey that is supposed to have originated from some of the cattle having been thrown into the bay and floated across to the Jersey side. In this New Jersey outbreak Pasteur's vaccine was used, and of its efficacy Dr. Tremain writes, that on farms where they had been rapidly dying, he inoculated one hundred and seventy-six horses, one hundred and fifty-two cattle, and fourteen mules; and of this number only three died after the first injection, and only one after the second. A little later, by State authority, one thousand two hundred and twenty-seven horses, cattle, and mules were inoculated, with satisfactory results. The State furnished the vaccine, but the vaccination was optional with the owners.

It has been stated that anthrax was introduced into Southern California from France, but after diligent inquiry among the old settlers, I have been unable to verify it. The first outbreak in these parts was in a band of about three hundred sheep, belonging to a man by the name of Myers, near the San Fernando Mission; they nearly all died. That was in 1878 or 1879. The first person to die was a Mrs. Donalechi, in

the same neighborhood, and a year or two later. The sheep on the same ranch were rapidly dying at that time. This woman was probably inoculated by a fly, as the pustule was on the upper part of her breast. At the time, she was supposed by her neighbors to have erysipelas. From there it seems to have spread to nearly all parts of Los Angeles County, although it was several years after this before the first sheep were imported from France by Judge Amestoy, who lived about ten miles south of this city, and the disease did not make its appearance on that ranch until many years later; but sheep-raising has now been abandoned there almost entirely. The last, a band of one thousand four hundred, were divided, one half being sent to the Encino, about thirty miles from here, in the San Fernando Valley; all that were left on the home ranch died, while the mortality in those driven away was no greater than usual.

On this Encino ranch, which has been a very extensive sheep ranch, I am informed by the owners that men very frequently have charbon, as they call it (from fly bites), but the sheep seldom. In the foothills are some sulphur springs, and sheep brought to the ranch, if watered at these springs, do not have it; but if taken to the lower part of the ranch they do; and that sheep raised on the ranch at the springs can go to the lower lands with little danger; all of this they attribute to the medicinal effect of the sulphur water.

Three years ago an outbreak occurred on the Hammel & Denker ranch, between this city and Santa Monica, in which forty-two head of cattle died in about two weeks. These cattle, about three hundred head, of all ages, had been driven on to dry stubble, and were watered at an old reservoir, which was dry most of the year, except when filled for this purpose. They were there only a week or ten days before commencing to die; they were brought back, but deaths continued between two and three weeks. The exciting cause being removed, the disease naturally wore itself out; but the checking of the outbreak was attributed, by Mr. Denker, to entirely different reasons. He had a receipt for a vaccinating compound, that he paid some man \$300 for a few years before, and he had a large quantity mixed and diligently used, and there were only a few died afterward. The *modus operandi* was very interesting: An animal was caught and made fast, an incision was made between the digits with a knife, after which the mixture was shaken into the wound out of a pepperaauce bottle. Mr. Denker declared to the day of his death that that \$300 was one of the best investments he had ever made.

Malignant pustule, the external anthrax disease of man, is very common in this part of the State, Dr. Nadeau having treated cases up in the hundreds; he having a large practice among the Basque sheepmen.

Dr. McGowan has treated many cases, and in 1892 read a very exhaustive paper on malignant pustule before the Southern California Medical Association; reprints of which he has lately had printed, after much solicitation.

The sheepmen are very quick to know a case of charbon on themselves, and do not delay its treatment. Some treat it with scarifications and turpentine, and garlic poultices, when on their hands, where it seems to most often occur. I saw four men at one time on a ranch, last year, with small charbon sores on their fingers, and they did not seem

to be at all afraid of the results, and were treating them in their own way.

The germs of anthrax are with us to stay; man is in danger from the dead carcasses of animals and their products, either by handling or through the instrumentality of flies. So it behooves the sanitarian, as far as possible, to prevent the disease in animals, and thoroughly destroy the bodies when dead.

Fire, or deep burial without mutilation, is the best method of destruction, and so far as our present knowledge goes, inoculation with lymph, after Pasteur's method, is the best preventive.

The greatest drawback is the procuring of fresh vaccine virus, the nearest place that it can be procured being New York. It has been suggested by Dr. J. H. Davisson, of the State Board of Health, that if it was placed in cold storage, it might be kept indefinitely. There are cold rooms in this city that are kept from 12° to 18°, and it certainly would be advisable, in all counties where anthrax is prevalent, for the Supervisors to keep a limited amount of the weaker vaccine for first inoculation; the second inoculation takes place in twelve days, allowing plenty of time to procure it from the laboratories in the East.

THE PRESIDENT: Permit me, on the part of the State Board of Health, to thank you, gentlemen and ladies, for your attendance and attention at this convention.

Adjourned.

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SECOND BIENNIAL REPORT

OF THE

STATE VETERINARY MEDICAL BOARD

OF THE

STATE OF CALIFORNIA.

November, 1894, to December, 1896.



SACRAMENTO :

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.
1896.

REPORT.

To his Excellency JAMES H. BUDD, Governor of the State of California:

SIR: In compliance with law, the State Veterinary Medical Board hereby submits the following as the second biennial report of its proceedings, together with an account of all moneys received and disbursed.

The members of the State Veterinary Medical Board are as follows: Thomas Maclay, M.R.C.V.S., of Petaluma, President; R. A. Archibald, V.S., of Oakland, Secretary; H. F. Spencer, D.V.S., of San José, Treasurer; R. T. Whittlesey, D.V.S., of Los Angeles, and Ward B. Rowland, D.V.S., of Pasadena.

Pursuant to adjournment, the Board met at the Hollenbeck Hotel, Los Angeles, on the 12th of December, 1894, President Maclay presiding.

Two graduates presented their diplomas for examination, and the same being satisfactory, licenses were issued to the holders thereof.

The Board adjourned to meet in San Francisco on the 1st of May, 1895.

Pursuant to adjournment, the Board met at the Baldwin Hotel, San Francisco, on the 1st of May, 1895, President Maclay presiding.

Two graduates presented their diplomas for inspection, and the same being found to be genuine, licenses were issued to them.

The Board adjourned to meet in Los Angeles on the 9th of December, 1895.

Pursuant to adjournment, the Board met at the Hollenbeck Hotel, Los Angeles, on the 9th of December, 1895. In the absence of the President, Dr. R. T. Whittlesey, of Los Angeles, was elected President pro tem.

After due examination, the Board approved the diplomas of two graduated practitioners and issued licenses accordingly.

The Board adjourned to meet in San Francisco on the 11th of March, 1896.

Pursuant to adjournment, the Board met at the Baldwin Hotel, San Francisco, on the 11th of March, 1896, President Maclay presiding.

One diploma was presented for examination, and the same having been found to be genuine, a license was issued accordingly.

The Board adjourned to meet in Los Angeles on the 9th of December, 1896.

Pursuant to adjournment, the Board met at the Hollenbeck Hotel, Los Angeles, on the 9th of December, 1896. In the absence of the President, Dr. R. T. Whittlesey, of Los Angeles, was elected President pro tem.

One graduate presented his diploma for examination, and the Board being fully satisfied, issued a license to said graduate.

The Board adjourned to meet in San Francisco on the 9th of March, 1897.

The following is a statement of all moneys received and disbursed by the Board since the 12th of September, 1894:

<i>Receipts.</i>	
Amount brought forward	\$56 25
Examination of diplomas.....	40 00
Licenses issued.....	40 00
Total	<u>\$136 25</u>

<i>Disbursements.</i>	
Traveling expenses and per diem of members of the Board.....	\$80 00
Stationery, etc.	8 43
Rent of rooms and incidentals	10 00
Total	<u>98 43</u>
Balance on hand	\$37 82

All persons who are practicing veterinary medicine and surgery in any city, city and county, or town in this State, having a population of two thousand or more, and who have not received a license from this Board in pursuance of the Act mentioned, are violating the law, and are subject to arrest and a fine of not less than one hundred (100) dollars, nor more than five hundred (500) dollars, or by imprisonment of not exceeding six months, or by both.

It will be necessary for all persons who may hereafter desire to engage in the practice of veterinary medicine and surgery in this State to secure a license from this Board, upon a diploma from a legally chartered college of veterinary medicine and surgery, as required by the Act of March 23, 1893.

It seems popularly supposed that the State Veterinary Medical Board shall prosecute all persons violating the law. This is not the case, but

it is the duty of every veterinary surgeon to see that the law is enforced, and it is the duty of every prosecuting attorney of each county to prosecute every person violating the law, on receipt of information of such violation, and the necessary evidence to establish the fact. Positive evidence of the violation of the law must first be obtained. This, with formal information and a list of witnesses, should be handed to the prosecuting attorney, who will then be in duty bound to prosecute the case.

The attention of licensees is called to the fact that they are required to have their licenses prominently displayed in their offices, and true copies thereof filed in the office of the Clerk of the county in which the licensee resides. It requires no action of the Board to work a forfeiture of the license under Section 6 of the law; the fact of failure to have it filed within six months after date of issue, subjects licensee to the penalty for neglect.

The Board is thoroughly impressed with the importance of legislation of this character, and have great confidence that the judicious administration of the law under which they act must redound to the credit of the community.

All of which is respectfully submitted by the State Veterinary Medical Board of the State of California.

THOMAS MACLAY, M.R.C.V.S.,
President.

R. A. ARCHIBALD, V.S.,
Secretary.

Dated at Oakland, Cal., December 15, 1896.

LAW REGULATING THE PRACTICE OF VETERINARY MEDICINE AND SURGERY IN THE STATE OF CALIFORNIA.

SECTION 1. It shall be unlawful for any person or persons to practice veterinary medicine and surgery in any city, city and county, or town, in this State, having a population of two (2) thousand or more, without having previously obtained a diploma from a college duly authorized to grant such students, in veterinary medicine and surgery, or those who have passed a satisfactory examination before the State Veterinary Medical Board, as hereinafter provided for.

SEC. 2. This Board of Examiners shall be known as the State Veterinary Medical Board, and shall consist of five duly qualified practitioners in veterinary medicine and surgery, whose duty it shall be to carry out and enforce the provisions of this Act.

2. The members of the State Veterinary Board shall be appointed by the Governor of the State.

3. The Board so appointed shall hold office for four (4) years, and the compensation of each member of said State Veterinary Medical Board shall be five dollars per diem, exclusive of all necessary expenses while actually engaged in the duties of their office at the meetings of said Board.

4. A meeting of the said Veterinary Medical Board shall be held at least once in every six months after the appointment of said Board by the Governor of the State of California, such meetings to be held alternately in San Francisco and Los Angeles.

5. Three members of the State Veterinary Medical Board shall constitute a quorum.

6. Said compensation to be paid out of the fees and penalties received under the provisions of this Act, and no part of the salary or other expenses of the State Veterinary Medical Board shall be paid out of the State Treasury.

7. All moneys received by said State Veterinary Medical Board as such fees and penalties, in excess of the compensation and expenses of the State Veterinary Medical Board, shall be annually paid into the State Treasury, and become a part of the General Fund of the State.

SEC. 3. Said State Veterinary Medical Board shall examine all diplomas as to their genuineness. Each applicant not holding a diploma shall submit to a theoretical and practical examination before the State Veterinary Medical Board, said examination to be written or oral, or both, and sufficiently strict to satisfy said Board that the applicant is competent to practice veterinary medicine and surgery.

2. An examination fee of five dollars shall be paid to the State Veterinary Medical Board by the holder of a diploma, and ten dollars by an

applicant not holding a diploma; said money shall be paid by the applicant before examination.

3. In case of failure of approval, said fee shall be forfeited to the State Veterinary Medical Board.

SEC. 4. All examinations of persons not graduates shall be made directly by the State Veterinary Medical Board, and the certificate given by said Board shall authorize the possessor to practice veterinary medicine and surgery in the State of California. All examinations of ungraduated practitioners must take effect before the thirty-first day of December, eighteen hundred and ninety-three. After that date no certificates shall be granted, except to persons presenting diplomas from legally chartered colleges.

SEC. 5. Upon the approval of credentials, or upon the approval of the examination of an applicant, said State Veterinary Medical Board shall grant him or her a license to practice in this State, and shall receive therefor a fee of five dollars; said license shall be signed by a majority of the Board.

SEC. 6. Any person qualified, as required by this Act, shall, upon the receipt of his license, have said license prominently displayed in his office, and a true copy thereof shall be filed in the office of the Clerk of the county in which he resides. Any person removing to another county to practice shall file the license in like manner in the county to which he removes. The holder shall pay the County Clerk the usual fees for filing. Any person holding such license who shall refuse or neglect to prominently display in his office, or file a copy of the same with the County Clerk, as above directed, within six months after receiving such license, shall forfeit his license; and no license when once forfeited shall be restored to the original holder, except on the payment to said State Veterinary Medical Board the sum of twenty-five dollars as a penalty for such failure, neglect, or refusal.

SEC. 7. Any person shall be regarded as practicing veterinary medicine and surgery, within the meaning of this Act, who shall have received a license as mentioned in Section 5. But nothing in this Act shall be construed to prohibit the members of the medical profession from prescribing for domestic animals in case of emergency, and collecting a fee therefor, nor to prohibit gratuitous services in an emergency, nor to prevent any person from practicing veterinary medicine and surgery on any animal belonging to himself or herself. And this Act shall not apply to commissioned veterinary surgeons in the United States Army.

SEC. 8. Any person practicing veterinary medicine and surgery in this State contrary to the provisions of this Act shall be guilty of a misdemeanor, the penalty of which shall be a fine of not less than one hundred dollars, nor more than five hundred dollars, or by imprisonment of not exceeding six months, or by both.

SEC. 9. This Act shall take effect sixty days from on and after its passage.

OFFICIAL REGISTER OF VETERINARIANS

HOLDING LICENSES FROM THE STATE VETERINARY MEDICAL BOARD OF
THE STATE OF CALIFORNIA.

Eagan, W. F.	San Francisco.	Orvis, C. B.	Stockton.
Burns, Peter*	San Francisco.	Power, R. H.	Stockton.
Masoero, Ceasar	San Francisco.	Eddy, J. H.	Stockton.
Skaife, F. W.	San Francisco.	Baldy, O. C.	Grass Valley.
Neif, F. A.	San Francisco.	Lord, R. A.	Santa Ana.
Fitzgerald, J. D.	San Francisco.	Garner, J. H.	Santa Ana.
Claussen, H. H.	San Francisco.	Rowland, W. B.	Pasadena.
Creely, E. J.	San Francisco.	White, S.	Pasadena.
Jacobsen, J.	San Francisco.	Maclay, Thomas	Petaluma.
Jones, W. H.	San Francisco.	Wadams, W. E.	Santa Clara.
Bowhill, T.	San Francisco.	Parent, P. P.	Santa Rosa.
Fabbi, H.	San Francisco.	Trullinger, J.	Bakersfield.
Robin, A.	San Francisco.	Sawyer, F. N.	Bakersfield.
Buckley, J. M.	San Francisco.	Lemke, H.*	Bakersfield.
Paterson, A.	San Francisco.	Forrest, H. A.	Santa Cruz.
Orme, T. W.	San Francisco.	Rowat, A. R.	San Francisco.
Westphal, C. H.	San Francisco.	Bergman, A.	Napa.
Buzzard, A. E.	Oakland.	Elliot, W. B.	Riverside.
Carpenter, T.	Oakland.	Clark, E. M.	Bishop.
Archibald, R. A.	Oakland.	Gillen, J. R.	San Diego.
Hogarty, J. J.	Oakland.	Alexander, A. L.	Woodland.
Stimpson, W.	Oakland.	Streets, J. J.	Ventura.
Pierce, F. E.	Oakland.	Matthews, G. E.	Fresno.
Jackson, H. R.	Oakland.	Crandell, E. J.	Pico Heights.
McCollum, A. M.	Sacramento.	Davidson, R. D.	San Bernardino.
Fox, D. F.	Sacramento.	Fleming, W. J.	Ontario.
Megowan, C. L.	Sacramento.	Cragan, H. B.	Pomona.
Whittlesey, R. T.	Los Angeles.	Smith, A. O.	Pomona.
Blackenton, J. C.	Los Angeles.	Kelty, W. P.	Pomona.
Edmons, J. A.	Los Angeles.	Blackentose, E.	Eureka.
Oliver, W. J.	Los Angeles.	Graham, J.	Fresno.
Morrison, W. E. D.	Los Angeles.	Forrest, F.	Los Gatos.
Withers, R. J.	Los Angeles.	Faulkner, G. F.	Salinas.
Withers, S. A.	Los Angeles.	Williams, A. S.	Marysville.
Tourillon, H. P.	Los Angeles.	Goulding, F.	Santa Barbara.
Button, W. W.	Los Angeles.	Selleck, W.	Escondido.
Twombly, S. S.	Los Angeles.	Wise, A. B.	San Bernardino.
Dodson, G. K.	Los Angeles.	Carney, R. T.	Whittier.
Spencer, H. A.	San José.	Davenport, P. C.	Stockton.
Spencer, H. F.	San José.	Thompson, W. M.	Willows.
Martin, B.	San José.	Magor, J. F.	Redlands.
Schodde, B.	San José.	Hester, J. H.	Pasadena.
Shaw, R. J.	San José.		

* Deceased.

FOURTH AND FIFTH ANNUAL REPORTS

OF THE

California State Board of Pharmacy

AUGUST 1, 1894, TO AUGUST 1, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1896.

FOURTH ANNUAL REPORT

OF THE

CALIFORNIA STATE BOARD OF PHARMACY,

AUGUST 1, 1894, TO AUGUST 1, 1895.

FOURTH ANNUAL REPORT
OF THE
CALIFORNIA STATE BOARD OF PHARMACY.

SAN FRANCISCO, August 1, 1895.

To his Excellency JAMES H. BUDD, Governor of California:

SIR: Herewith is submitted the fourth annual report of the California State Board of Pharmacy.

Since July, 1894, there have been held six sessions, as follows: San Francisco—October 10, 1894; January 9, 1895. Los Angeles—March 18, 1895. San Francisco—March 21, 1895; May 3, 1895; and July 10, 1895.

At the annual meeting S. H. Melvin was elected President, and John H. Dawson, Secretary and Treasurer of the Board. The salary of the Secretary was placed at \$500 per annum.

The yearly re-registration dues were placed at \$2 for Registered Pharmacists, and \$1 for Registered Assistant Pharmacists, for dates commencing May 5, 1895, and ending May 5, 1896, excepting those persons who have registered since January 1, 1895; for all such a fee of \$1 for Registered Pharmacists, and 50 cents for Registered Assistant Pharmacists.

There have been re-registered for the present term:

675 Practicing Pharmacists.
166 Graduates in Pharmacy.
177 Licentiates in Pharmacy.
375 Assistant Pharmacists.

Original registrations since July, 1894, there have been as follows:

26 Assistants by examination.
28 Licentiates by examination.
7 Licentiates without examination.
22 Graduates.

Failing to pass the examination, there were:

20 Assistants.
51 Licentiates.

There have been quite a number of prosecutions, and except one case, no legal contest has been decided against the construction of the law as understood by the Board of Pharmacy. Several of the contestants engaged counsel and had presented to the court the points of law most favoring their cases. The one decided in favor of the defendant was through misunderstanding of the facts by the Judge, who corrected the error by notifying the defendant and other proprietor and employes of the pharmacy that they must conform to the regulations of the Pharmacy Act by registration, or warrants would be issued for their arrest and prosecution. Application was at once made by all entitled to registration.

For obvious reasons, it is deemed not advisable to advertise names of those pharmacists who have either been prosecuted or, having had their attention officially drawn to the fact of violation of the law, have conformed to the legal requirements.

A number of persons not pharmacists, and others with but slight knowledge of pharmacy, have purchased pharmacies or opened new stores and managed the business and personally sold drugs and medicines. In these instances, prosecutions have been commenced at once, such cases being more serious and dangerous to the public good. Cases of competent pharmacists who have technically violated the Act by non-payment of the annual fee, are treated with more leniency; their cases, however, have been adjusted for the most part by sending a second notice.

The pharmacy law is now fairly understood by the pharmacists of the State, and generally complied with. The examinations are both oral and written, and so arranged as to bring out the pharmaceutical knowledge and practical ability of the applicant. Many after passing as Assistants have, after a course of study, either at home or under an instructor, where such advantages were possible, passed the Licentiate examination.

The law is productive of much good in inciting to study and obtaining a greater knowledge of the practice of pharmacy than is the case where no legal requirements prevail.

Respectfully submitted.

S. H. MELVIN, President.

J. W. WOOD.

W. M. SEARBY.

R. J. VAN VOORHIES.

H. J. FINGER.

J. H. FLINT.

J. H. DAWSON, Secretary.

FINANCIAL REPORT.

RECEIPTS.

Amount on hand August 1, 1894	\$1,796 66
Receipts to date (August 1, 1895)	3,113 70
	<hr/> \$4,910 36

DISBURSEMENTS.

J. W. Wood	\$594 00
H. J. Finger	564 20
W. M. Searby	100 00
J. H. Flint	345 10
S. H. Melvin	235 00
R. J. Van Voorhies	248 35
J. H. Dawson	231 15
Legal expenses, prosecutions, witness fees, etc.	175 65
Printing, stationery, office supplies, engrossing	70 10
Assistant clerical work, collection expense	36 50
Secretary's salary	500 00
Stamps, registered letters, money orders	81 60
Express	11 85
Rent of hall	60 00
Money returned, certificates not allowed	28 50
Cabinet	10 00
Dispensatory	7 50
Cash on hand	1,610 86
	<hr/> \$4,910 36

COPY OF THE PHARMACY LAW (AS AMENDED).

CHAPTER LXXXV.

An Act to Regulate the Practice of Pharmacy and Sale of Poisons in the State of California.

[Approved March 11, 1891.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. From and after the first day of January, A. D. eighteen hundred and ninety-two, it shall be unlawful for any person to conduct any pharmacy or store for dispensing or compounding medicines, unless such person be a registered pharmacist, within the meaning of this Act; and it shall be unlawful for any person to compound or dispense any physician's prescription, unless such person be a registered pharmacist, or a registered assistant pharmacist, within the meaning of this Act, except as hereinafter provided.

SEC. 2. Any person, in order to be a registered pharmacist, must be a graduate in pharmacy, a licentiate in pharmacy, or a practicing pharmacist.

SEC. 3. Graduates in pharmacy are persons who have had four years' experience in stores where the prescriptions of medical practitioners are compounded, and each must have obtained a diploma from a legally constituted college of pharmacy. Licentiates in pharmacy are persons who have had four years' experience in stores where the prescriptions of medical practitioners are compounded, and shall have passed an examination before the State Board of Pharmacy, or who shall present satisfactory credentials of their attainments to the said Board. Practicing pharmacists are persons who, at the passage of this Act, are conducting pharmacies in this State for compounding and dispensing of prescriptions of medical practitioners, and for the sale of medicines and poisons. Assistant pharmacists are persons of not less than eighteen years of age, who are employed by registered pharmacists, have studied the art of pharmacy for two years, and have passed an examination by the Board of Pharmacy, or who, prior to the passage of this Act, have had three years' experience in pharmacies.

SEC. 4. Every pharmacist claiming the right of registration under this Act shall, on or before the first day of January next after its passage,

forward to the Board of Pharmacy satisfactory proof that he was engaged in the business of preparing and dispensing medicines and physicians' prescriptions at the time of passage of this Act, or that he is otherwise entitled to registration under its provisions. The Board of Pharmacy shall then issue to said applicant, upon his paying the sum of five dollars, a certificate of registration. Any practicing pharmacist failing to comply with the requirements of this section, within sixty days from and after the first day of January, eighteen hundred and ninety-two, shall forfeit his right to registration, and shall appear for examination, as provided for in this Act.

SEC. 5. Every assistant pharmacist claiming right of registration under this Act, without passing an examination by the Board of Pharmacy, shall, on or before the first day of January next after the passage, forward to the Board of Pharmacy satisfactory proof that he has had three years' experience in drug stores where physicians' prescriptions are prepared; the Board of Pharmacy shall then issue to said applicant, upon his paying the sum of one dollar, a certificate of registration as assistant pharmacist. Any assistant failing to comply with the requirements of this section, within sixty days from and after the first day of January, eighteen hundred and ninety-two, shall forfeit his right to registration without passing the examination provided for in this Act. No registered assistant shall conduct a pharmacy or be granted a certificate as registered pharmacist, until he has passed the examination for licentiate in pharmacy, as required by this Act.

SEC. 6. Within thirty days after the passage of this Act, and every fourth year thereafter, the Governor shall appoint seven competent pharmacists, residing in different parts of the State, to serve as a Board of Pharmacy. The members of this Board shall, within thirty days after their appointment, individually take and subscribe, before the County Clerk in the county in which they individually reside, an oath, faithfully and impartially to discharge the duties prescribed by this Act. They shall hold office for the term of four years, and until their successors are appointed and qualified. In case of vacancy in the Board of Pharmacy, the Governor shall fill the same by appointing a member to serve for the remainder of the term only. The office of said Board shall be located in San Francisco. The Board shall organize by electing a President and a Secretary, the latter to be ex officio Treasurer of the Board. Four members of the Board shall constitute a quorum. They shall meet at least quarterly, and have power to make by-laws for the proper fulfillment of their duties. The duties of the Board shall be to transact all business pertaining to the legal regulations of the practice of pharmacy; to investigate all complaints respecting non-compliance with, or violations of, the provisions of this Act, and to bring the same to the notice of the proper prosecuting officer, whenever there appears

to the Board to be reasonable grounds for such action, and to examine and register as pharmacists, or assistant pharmacists, all applicants whom it shall deem qualified to be such, respectively. All persons on applying for examination or registration, shall pay to the Secretary a fee of five dollars for licentiate and two dollars for assistants; and on passing the examination they shall be furnished with a certificate signed by the Secretary and examiners. In case of failure to pass, the Board shall grant a second examination within one year, without any additional fee being charged. Every registered pharmacist who desires to continue the practice of his profession in this State, shall annually, on such date as the Board of Pharmacy may determine, pay to the Secretary of the said Board a registration fee to be fixed by the Board, but which shall in no case exceed the sum of two dollars per annum, for which he shall receive a renewal of said registration. Every registered assistant pharmacist who desires to continue the practice of his profession in this State, shall annually, on such date as the Board of Pharmacy may determine, pay to the Secretary of said Board a registration fee, to be fixed by the Board, but which shall in no case exceed the sum of one dollar per annum, for which he shall receive a renewal of said registration. The Board shall render an annual report of its proceedings to the Governor of the State.

SEC. 7. It shall be the duty of the Secretary to keep a book of registration open at the City of San Francisco, of which due notice shall be given through the public press or by mail, in which book shall be entered, under the supervision of the Board, the name, titles, qualifications, and places of business of all persons coming under the provisions of this Act. The Secretary shall give receipts for all money received by him, and disburse the same by order of the Board for necessary expenses, taking proper vouchers therefor. The balance of said money, after paying the expenses of the Board, he shall pay to the State Treasurer, who shall keep it as a special fund to be used in carrying out the provisions of this Act.

SEC. 8. The members of the Board of Pharmacy shall each be paid the sum of five dollars per diem for every meeting of the Board which they attend, and the Secretary shall receive such additional compensation as the Board may direct. All compensation of members and other expenses of the Board of Pharmacy shall be paid out of the examination and registration fees and fines.

SEC. 9. No person shall add to or remove from, or cause to be added to or removed from, any drug, chemical, or medicinal preparations, any ingredient or material for the purpose of adulteration or substitution, or which shall deteriorate the quality, commercial value, or medicinal effect, or alter the nature or composition of such article, and no person shall knowingly sell or offer for sale, any such adulterated, altered or substi-

tuted drug, chemical or medicinal preparation, without informing the purchaser of the adulteration or sophistication of the article sold or offered for sale. Every registered pharmacist shall file, or cause to be filed, all physicians' prescriptions compounded or dispensed in his pharmacy or store; they shall be preserved for two years, and he shall furnish a correct copy of any prescription, upon the order or request of the attending physician. Any person who shall willfully violate any of the provisions of this section shall be guilty of a misdemeanor, and upon conviction thereof shall be liable to all costs of the action; and for the first offense be liable to a fine not exceeding fifty dollars, and for each subsequent offense a fine of not less than fifty nor more than one hundred dollars, said fines to be paid over to the Board of Pharmacy. On written complaint being entered against any person or persons, charging them with specific violation of any of the provisions of this Act, the Board of Pharmacy is hereby empowered to delegate one of its members, or other suitable person, who shall have authority to inspect drugs, chemicals, or medicines, and to make a thorough investigation of the case; he shall then report the result of his investigation, and if such report justify such action, the Board shall notify the Prosecuting Attorney or District Attorney, who shall prosecute the offender according to law.

SEC. 10. It shall be unlawful for any person to retail any poisons enumerated in Schedules "A" and "B," appended to this Act, without labeling the box, bottle, or paper in which said poison is contained, with the name of the article, the word "poison," and the name and place of business of the seller. Nor shall it be lawful to sell or deliver any poison named in Schedules "A" and "B," unless on inquiry it is found that the person is aware of its poisonous character, and that it is to be used for a legitimate purpose. Nor shall it be lawful to sell or deliver any poison included in Schedule "A" without making, or causing to be made, an entry in a book kept for that purpose only, stating the date of sale and the name and address of purchaser, the name and quantity of the poison sold, the purpose for which it is stated by the purchaser to be required, and the name of the dispenser; said book to always be open for inspection by the proper authorities, and to be preserved for at least five years. The provisions of this section shall not apply to the dispensing of poisons when prescribed by practitioners of medicine, nor to the sale of poisons if a single bottle or package does not contain more than an ordinary dose. Dealers shall affix to every bottle, box, parcel, or other inclosure of an original package containing any of the articles named in Schedules "A" and "B" of this Act a suitable label or brand with the word "poison"; but they are hereby exempted from the registration of the sale of such articles when sold at wholesale, or to a registered pharmacist or physician. Any person failing to comply

with the requirements of this section shall be guilty of a misdemeanor, and upon conviction shall be liable to a fine not exceeding fifty dollars.

SEC. 11. Any person who shall attempt to procure registration for himself, or any other person under this Act, by making or causing to be made any false representations, or who shall fraudulently represent himself to be registered, shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be fined in a sum not exceeding two hundred dollars. Any registered pharmacist who shall permit the compounding and dispensing of prescriptions of medical practitioners in his store by persons not registered, except by junior assistants, under the direct supervision of registered persons; or any person not registered who shall retail medicines or poisons, except in a pharmacy under the supervision of a registered pharmacist or a registered assistant pharmacist; and any registered person who shall fail to comply with the regulations of this Act, shall be guilty of a misdemeanor, and upon conviction thereof be fined not exceeding fifty dollars. Nothing in this Act shall apply to, or interfere with the business of any practitioner of medicine who does not keep a pharmacy or open shop for the retailing of medicines or poisons, nor with the exclusive wholesale business of any dealer, except that portion of section ten which relates to marking or labeling certain poisons mentioned in this Act. Nor shall general dealers come under the provisions of this Act, in so far as it relates to the keeping for sale of proprietary medicines in original packages of drugs and medicines; but in no case shall they compound or prepare any pharmaceutical preparations or prescriptions.

SEC. 12. All persons registered under this Act shall be exempt and free from jury duty.

SCHEDULE "A."

Arsenic, corrosive sublimate, cyanide of potassium, hydrocyanic acid, strychnia, cocaine, and all other poisonous vegetable alkaloids and their salts, opium and all its preparations, except those which contain less than two grains to the ounce.

SCHEDULE "B."

Aconite, belladonna, colchicum, conium, nux vomica, savin, cantharides, phosphorus, digitalis, and their pharmaceutical preparations, croton oil, chloroform, chloral, sulphate of zinc, sugar of lead, mineral acids, carbolic acid, oxalic acid, white precipitate, red precipitate, biniodide of mercury, essential oil of almonds.

All Acts or parts of Acts which conflict with this are hereby repealed.

CIRCULAR OF INFORMATION.

There are held four regular meetings for examination and registration during the year, the dates of which are as follows: The second Wednesday in January, April, July, and October. The place of meetings, 113 Fulton Street, San Francisco. Session commences at 10 A. M.; examinations at 1:30 P. M. Examination fees for Licentiates, \$5; Assistant, \$2. Special meetings, for examinations only, are held in other portions of the State, the place and date being arranged at the regular meeting prior to the special. Examinations require from two to three days' time. Branches of examination are: Chemistry, toxicology, pharmacy, materia medica, recognition of crude drugs and pharmaceutical preparations, practical pharmacy, as prescription criticism, pharmaceutical processes, dispensing, weights and measures, etc.

Length of time in business, certificates of registration issued by other Boards of Pharmacy, petitions, recommendations, statements from physicians as to ability, etc., are not accepted as satisfactory evidence of ability as a pharmacist, and registration cannot be obtained on such credentials. Physicians are not eligible for registration as pharmacists on their credentials as physicians. Unless the applicant for registration be a Graduate in Pharmacy, or possesses credentials which would be satisfactory for registration as Licentiate, an examination by the Board of Pharmacy would be required for registration.

Licentiates in Pharmacy eligible to registration without examination, are persons having four years' experience, who have presented satisfactory credentials of their attainments to the Board of Pharmacy. This would include persons holding certificates of the same character and values as the degree "Graduate in Pharmacy," but not so worded. Educational institutions of other countries do not use the term "Graduate," though issuing a certificate of equal value. This Board accepts only such credentials which to obtain have required four years' experience and courses of instruction and examinations in pharmaceutical branches. Fee for first registration, \$5.

Assistant Pharmacists are persons not less than eighteen years of age who have had two years' experience and have passed an examination by the Board of Pharmacy.

Graduates in Pharmacy are persons who have had four years' experience in stores where the prescriptions of medical practitioners are compounded, and each must have obtained a diploma from a legally constituted college of pharmacy. Holders of such credentials may be

registered by forwarding proper blank, duly acknowledged, and fee. The diploma is not required for inspection. Fee for first registration, \$5.

Licentiates (by examination) in Pharmacy are persons who have had four years' experience in stores where the prescriptions of medical practitioners are compounded, and who have passed an examination before the State Board of Pharmacy.

The re-registration fees are yearly, and payable between the dates of May 5th and July 5th. Re-registration fee for Registered Pharmacists is \$2; for Registered Assistant Pharmacists is \$1. Forms of application for registration and examination will be mailed on application to the Secretary. These should be sworn to before a Notary, and the form for examination be forwarded to the Secretary, with fee, a week prior to date of examination, if possible.

Duplicate certificates may be obtained by forwarding an affidavit of the destruction of the original and a fee of fifty cents. Registered Assistant certificates do not permit the management of a pharmacy for a person or firm, unless such person or members of firm be registered as Registered Pharmacist.

Registered Pharmacist may have name engrossed in certificate by forwarding fifty cents, otherwise it will be written in script.

The law requires that competent persons only dispense medicines and poisons. Any person or firm may own a pharmacy. Application blanks will be forwarded upon application.*

All persons registered under the Pharmacy Act are exempt from jury duty.

The Secretary should be notified of changes of address, that notices, etc., may be sent. Also notified in case of deaths.

*Applicants for examination as Licentiate or Assistant should present evidence of having completed the grammar course in the public schools of this State or other evidence that they are entitled to enter the High School, otherwise it will be required that they pass a preliminary examination before the Board of Pharmacy in the branches reading, writing, spelling, arithmetic, geography, and composition. Unless the credentials are satisfactory or the preliminary examination successful, registration for Licentiate or Assistant will not be granted. All communications should be addressed to the Secretary, John H. Dawson, Valencia Street, cor. Twenty-third, San Francisco.

FORMS OF APPLICATION.

OBTAINED FROM SECRETARY ON APPLICATION.

These should be properly filled out and sworn to before a Notary, and the form for examination forwarded to the Secretary, with fee, ten days prior to date of examination.

FOR REGISTRATION AS A GRADUATE OR LICENTATE IN PHARMACY.

To the California State Board of Pharmacy:

1. Name.
2. Age and place of birth.
3. Place of business.
4. Have you attended a college or school of pharmacy?
5. If so, give name and location of college, and length of time in attendance.
6. Have you received a diploma as a Graduate of Pharmacy from any university, college, or school of pharmacy in the United States?
7. If so, give name of college, school, or university, with date of graduation.
8. What credentials have you from any university, school, or college of any foreign country?
9. How long have you been engaged in pharmacies; when, with whom, and where?
10. If not a graduate, what credentials or certificates of your attainments can you present which would entitle you to register as a Licentiate?

STATE OF CALIFORNIA, }
 ——— County. } ss.

I, ———, above named, being duly sworn, do say, upon oath, that the answers and statements above made in my application for registration as a Registered Graduate or Licentiate in Pharmacy, as above set forth, are true and correct.

Subscribed and sworn to before me this ——— day of ———, A. D. 189—. (Sign here.) ———
 hand and notarial seal hereunto attached. Witness my

[SEAL.]

FOR CERTIFICATE AND REGISTRATION AS LICENTATE IN PHARMACY.

(Issued by examination only.)

To the California State Board of Pharmacy:

I, ———, of the County of ———, State of California, do hereby make application for a certificate and registration as a Licentiate in Pharmacy, by examination, under the provisions of Section 3 of an Act entitled "An Act to regulate the practice of pharmacy and sale of poisons in the State of California," approved March 11, 1891.

1. Name.
2. Age and place of birth.
3. How long have you been engaged in pharmacies where the prescriptions of medical practitioners are compounded? When, where, and with whom? *Answer fully.*
4. Are you a registered Assistant Pharmacist?
5. Are you now engaged in business as a Pharmacist or Assistant Pharmacist?

STATE OF CALIFORNIA, }
 _____ County. } ss.

I, _____, above named, being duly sworn, do say, upon oath, that the answers and statements above made in my application for registration and certificate as a Registered Pharmacist and Licentiate, as above set forth, are true and correct.

(Sign here.) _____

Subscribed and sworn to before me, this _____ day of _____, A. D. 189—. Witness my hand and notarial seal hereunto attached.

[SEAL.] _____

FOR CERTIFICATE AND REGISTRATION AS ASSISTANT PHARMACIST.

(Issued upon examination only.)

To the California State Board of Pharmacy:

I, _____, of the County of _____, State of California, do hereby make application for a certificate and registration as an Assistant Pharmacist, by examination, under the provisions of an Act entitled "An Act to regulate the practice of pharmacy and sale of poisons in the State of California," approved March 11, 1891.

1. Name.
2. Age and place of residence.
3. Length of time actually employed in pharmacies where the prescriptions of medical practitioners are compounded.
4. State when, where, and by whom employed.
5. How long have you studied the art of pharmacy?
6. Where are you employed at present?

STATE OF CALIFORNIA, }
 _____ County. } ss.

I, _____, above named, being duly sworn, do say, upon oath, that the answers and statements above made in my application for certificate and registration as a Registered Assistant Pharmacist, as above set forth, are true and correct.

(Sign here.) _____

Subscribed and sworn to before me, this _____ day of _____, A. D. 189—. Witness my hand and notarial seal hereunto attached.

[SEAL.] _____

LICENTIATES WITHOUT EXAMINATION.

Licentiates in Pharmacy without examination are persons having four years' experience who have presented satisfactory credentials of their attainments to the Board of Pharmacy. This would include persons holding certificates of the same character and value as the degree "Graduate in Pharmacy," but not so worded. Practical experience only, or personal recommendations, would not be considered satisfactory credentials. Boards of Pharmacy certificates are not accepted.

LICENTIATES BY EXAMINATION.

Licentiates (by examination) in Pharmacy are persons who have had four years' experience in stores where the prescriptions of medical practitioners are compounded, and who have passed an examination before the State Board of Pharmacy.

ASSISTANT PHARMACISTS BY EXAMINATION.

Assistant Pharmacists are persons not less than eighteen years of age who have had two years' experience, and have passed an examination by the State Board of Pharmacy.

FIFTH ANNUAL REPORT

OF THE

CALIFORNIA STATE BOARD OF PHARMACY,

AUGUST 1, 1895, TO AUGUST 1, 1896.

FIFTH ANNUAL REPORT

OF THE

CALIFORNIA STATE BOARD OF PHARMACY.

OFFICE OF SECRETARY,
1177 VALENCIA STREET, CORNER TWENTY-THIRD, }
SAN FRANCISCO, August 1, 1896.

To his Excellency JAMES H. BUDD, Governor of California:

DEAR SIR: Herewith is presented the fifth annual report of the California State Board of Pharmacy.

There have been held five sessions, on the following dates: October 9, 1895, at San Francisco; January 8, 1896, at San Francisco; April 2, 1896, at Los Angeles; April 8, 1896, at San Francisco; July 8, 1896, at San Francisco.

S. H. Melvin was elected President, and John H. Dawson Secretary and Treasurer of the Board.

FINANCIAL STATEMENT.

RECEIPTS.

Amount on hand, August 1, 1895	\$1,610 86	
Receipts to date, August 1, 1896	3,567 75	
		\$5,178 61

DISBURSEMENTS.

J. W. Wood	\$577 90	
H. J. Finger	727 90	
W. M. Searby	122 75	
J. H. Flint	186 80	
S. H. Melvin	199 90	
R. J. Van Voorhies	194 00	
J. H. Dawson	232 40	
Legal expenses, prosecutions, etc.	460 50	
Printing, stationery, office supplies, etc.	74 95	
Assistant clerical work; collection expense	30 50	
Secretary's salary	500 00	
Stamps, registered letters, and money orders	104 60	
Express charges	9 35	
Rent of hall	64 00	
Cash on hand	1,693 06	
		\$5,178 61

The number of prosecutions and convictions for violation of the pharmacy law during the past year was fourteen. Two prosecutions were found for the defendant; each qualified under the law afterward.

The number of cases investigated and adjusted without recourse to law was forty-two.

The names of the counties in which prosecutions were brought are: San Bernardino, Alameda, San Francisco, Los Angeles, Humboldt, Kern, Solano, Fresno, Sacramento, Santa Barbara, Amador.

The prosecutions represent a great amount of time spent and many miles of travel in order to attend to them, but they do not, by any means, represent the work of the Board in carrying out the law.

The number of unregistered persons who have been found conducting pharmacies or employing unregistered assistants, and who have ceased to thus violate the law through the action of the Board, far exceeds the number that have been prosecuted. The Board have aimed to secure a compliance with the provisions of the Pharmacy Act, without unduly harassing any who were violating the law in ignorance or for unfortunate circumstances; the majority of cases have been adjusted at the office, by correspondence, or by a personal visit of a member of the Board. Prosecutions are undertaken only after failure of more pacific means of adjustment.

The efforts of the Board to enforce the law have been greatly impeded by the very persons whose duty to the State, as prosecution officials, requires them to assist them in carrying it out.

We are glad to note a heartier approval and coöperation of the progressive pharmacists of the State in the enforcement of the pharmacy law. Without this support it will be difficult to secure a knowledge of its violation. We would urge upon our fellow pharmacists the necessity of further and continued assistance to us in this direction, as it is impossible with the means at our disposal to make a personal investigation of possible delinquencies in every town or village in the sparsely settled sections. Reported violations will be attended to at once, and in the course of time, it is hoped, the law will become so respected that its violation will not be frequent.

The number of candidates examined during the past year is 137. Of these, 85 passed a satisfactory examination.

There have been registered during the past year:

45 Graduates.

7 Licentiates without examination.

2 Assistants without examination.

43 Licentiates by examination.

20 Assistants by examination.

22 Assistants granted registration on their
Licentiate examination.

The number failing to pass a satisfactory examination is 74:

55 Licentiates.

19 Assistants.

The number of candidates examined during the past year is 137. Of these, 75 passed a satisfactory examination.

As no one is allowed to present himself for examination as Licentiate until he has had four years' practical experience in a pharmacy, it is surprising that so large a percentage should fail to secure a certificate of registration; and yet, the Board have rejected no one whom they deemed a person competent to be entrusted with the care of a retail drug store, the examinations being purposely made as devoid of abstract, scientific, or purely technical questions as possible.

The dense ignorance of some of the candidates as to matters with which they ought to be well informed, is surprising. This remark applies, in part, to the older men who entered drug stores many years ago when there was less danger than there is now in dispensing drugs, because of the more general use now, in medicine, of potent chemicals, alkaloids, and the active principles in place of crude drugs. That such men should be behind the times seems to be in some measure excusable, but many of the persons who present themselves for examination as Licentiate in Pharmacy, and show this awful lack of knowledge of the profession, are young men who have commenced their career since pharmacy laws were in operation. The examinations show that the majority of these had not devoted any considerable time, if any at all, to the study of their profession. Should any one question the need of a pharmacy law in this State, an attendance at one session of this Board, sitting as an examination board, would convince him, not only that the law is needed, but also that it should be vigorously enforced.

On the other hand, it has been gratifying to us to note that many of the candidates who have been rejected have applied themselves earnestly to study, and, returning for reëxamination after a year, have made good their deficiency and passed a much better examination.

That the law is beneficial in its operation for the public safety is shown first by the fact just mentioned, and also by the fact that most of those who obtain the Licentiate certificate show by their examination that they have devoted considerable time to systematic study in order to come up to the Board's requirements.

Of course, these remarks do not apply to graduates of pharmaceutical colleges, whose diplomas testify to their qualifications.

A large number of general merchandise dealers, of whom complaint had been received or who had been discovered in the canvassing by some member of the Board, were violating the pharmacy law. In all cases investigated the parties were in ignorance of the law, and when their

attention was directed to the fact that proprietary medicines only were exempt, and that pharmaceutical preparations and chemicals could only be legally dispensed by properly registered persons, promises were given to discontinue the sale of such articles.

In many of the stores visited, the preparations offered for sale were in an unfit condition to be used as remedies. Spirits of niter had become acid, hive syrup and syrup ipecac fermented, carbolic acid crystallized.

As a sample of the character of examination, the questions of the meeting of July, 1896, are here given:

PHARMACY.

1. Give official process for Syrupus, U. S. P. State sp. gr.
2. What is the composition of Syr. Scillae Co.? What poison does it contain? How does it differ from the original formula, and what is its common name?
3. What is the process for making Tincture Herbarum Recentium?
4. Give composition for the following: Linimentum Ammonia; Linimentum Chloroform; Linimentum Camphorea.
5. What precaution should be observed in keeping Calomel, and why? With what class of salts is it incompatible? What violent poison is sometimes found associated with it?
6. What excipient would you use for making Pills of Phosphorus; Permanganate of Potash; Nitrate of Silver?
7. Name the different products of the orange tree that are used in pharmacy. What is the Oil of Petit Grain? Oil Bigarade?
8. What is the boiling-point of water? The freezing-point? State these in both Fahrenheit and Centigrade thermometers. How may you reduce the Fahrenheit to the Centigrade scale?
9. What conditions are required in forming large crystals? How are granular salts made? What is meant by supersaturated solution?
10. What effect has exposure to the atmosphere upon the following salts: (a) Carb. Potash; (b) Borax; (c) Epsom Salts; (d) Iodide Potash, and Glycerine?

PRACTICAL PHARMACY.

1. (a) How do you prepare tinctures by maceration?
(b) How by percolation? Give general formula for each, and mode of preparation.
(c) Wherein consists the difference between tinctures and medicated spirits?
2. How would you compound an emulsion, to contain 40% Ol. Morrhuæ, 10% Geoline, and 5% each of Calcii Hypophosphis and Sodii Hypophosphis.
Give formula for 16 oz. mixture. Specify quantity, in metric system, of each constituent.
3. Give general formula for producing fluid extracts, and how to manipulate. Also state the usual difference in strength between fluid extracts and tinctures?
4. (a) State the difference in grains, between an ounce Troy and an ounce Avoirdupois.
(b) Give the difference between the U. S. pint and the pint Imperial.
5. Translate the following into English, and change quantities expressed in Metric into Troy. Criticise fully.

R Chloral	.2	R Syr. Pruni Virg.	
Potassi Bromidi		Syr. Ipecac	aa 32.
Sodii Bromidi	aa 1.	Muc. Acacia	48.
Quiniae Sulphas	.6	Tr. Ferri Chlor. ad. qs.	128.
Misce. ft. pulv.		Misce.	
Et div. in Charts No. X.		Sig: Cochlear parvum bis in dies.	
Sig: Deter pulv. alternus horis.			

6. Write four extemporaneous prescriptions, suitable for adults; each to contain two or more therapeutic agents. Use Latin without abbreviations, and give quantities in Metric.

7. Expectorant.
8. Carminative.
9. Diaphoretic.
10. Astringent.

TOXICOLOGY.

1. Name the two official antidotes for arsenical poisoning. State how they are prepared, and why one of them is to be preferred to the other.
2. Give the average medicinal dose of phosphorus; also the poisonous doses. What are its toxic effects? How are they best offset, and what emetic should always be used in cases of poisoning by phosphorus, and why?
3. How is oxalic acid made in large quantities; what are its poisonous effects, and how best counteracted? What is the best antidote in cases of poisoning by it, and what is formed by the use of the antidote? Is it a chemical, mechanical, or physiological antidote? To what class of poisons does oxalic acid belong?
4. What are the toxic effects of antipyrine, and what are the proper remedies?
5. What percentage of opium should good laudanum contain, and what percentage of morphine should good opium contain? What are the toxic effects of morphine, and what is the proper remedy for the same? What counter poison should be used, and why?
6. What is the proper remedy in cases of poisoning by tartar emetic? What is formed by the use of the proper antidote? Would it be a physiological or a chemical antidote, or both?
7. What is an antidote; a physiological antidote; a chemical antidote? What is a counter-poison? What is a poison?
8. How is chloral made, and what are its toxic effects? What is the best treatment in cases of poisoning by it.
9. Which of the two chlorides of mercury is poisonous—mercurous chloride, or mercuric chloride? What are the poisonous effects? What is the antidote, and treatment? What is the antidote for poisoning by nitrate of silver?
10. Lime and lime-water are proper antidotes for a certain poison. Name it. Common salt is a proper antidote for a certain poison. Name it. The white of an egg is a proper antidote for a certain poison. Name the poison, and state how many grains of the poison the white of one egg will offset.

MATERIA MEDICA.

1. *Ox-Gall*.
 - (a) What is its official name?
 - (b) What is its reaction on litmus paper?
 - (c) What are its principal constituents?
 - (d) What is accomplished by the pharmacopœial process of purifying it, and how can you tell whether it has been purified or not?
 - (e) For what is ox-gall used in medicine?
2. *Whisky*.
 - (a) From what and how obtained?
 - (b) What are the pharmacopœial requirements as to age and strength (the latter estimated by volume)?
 - (c) How can you tell if it has been doctored with glycerine, sugar, or foreign flavoring substances?
 - (d) How can you recognize an undue amount of fusel oil?
3. *Flax-Seed*.
 - (a) Botanical name of the plant, and where produced?
 - (b) What are its principal constituents?
 - (c) Which of these makes it more valuable for poultices than bread, oatmeal, etc.?
 - (d) How much per cent of oil should ground flax-seed contain?
 - (e) How can you detect adulteration with oatmeal or middlings?

4. *Linseed Oil*.

- (a) From what and how obtained?
- (b) To what extent is it soluble in absolute alcohol, carbon disulphide, and chloroform?
- (c) How can you detect adulteration with paraffine oils?
- (d) How detect adulteration with non-drying oils?
- (e) In what official preparation is it used?

5. *Strophanthus*.

- (a) What plant and what part of it is official, and where produced?
- (b) What is its active principle?
- (c) Its medicinal properties?
- (d) Dose of the tincture?

6. *Essential Oils*. How can you detect adulterations with—

- (a) Alcohol.
- (b) Fixed oils.
- (c) Phenol.

7. *Kola*.

- (a) What plant produces it, and where?
- (b) What part of the plant?
- (c) Why is the fresh preferred to the dry?
- (d) Name its principal constituents?
- (e) Uses and dose?

8. *Stillingia*.

- (a) What part of the plant, and where produced?
- (b) To what principle or principles does it owe its medicinal properties?
- (c) Its medicinal properties?
- (d) Dose of Fl. Extract?

9. Give the sources, uses, and doses of the following:

- | | | | |
|--------------------|----------------|----------------|------------------|
| 1. Apiol. | 4. Aristol. | 7. Pyrogallol. | 9. Sulfonal. |
| 2. Eucalyptol. | 5. Resorcin. | 8. Piperine. | 10. Chrysarobin. |
| 3. Terpin Hydrate. | 6. Acetanilid. | . | |

10. *Cannabis Indica*.

- (a) What part of the plant, and where produced?
- (b) Name its principal constituents, specifying those which probably give it its medicinal value?
- (c) For what is it used?
- (d) The official preparations, with dose of each?

CHEMISTRY.

- 1. (a) Name three conditions in which elements occur. (b) Give an example of each.
- 2. (a) Write the symbols for Zinc, Mercury, Potassium, Sodium, and Arsenic. (b) Name an official preparation of each, and give the dose.
- 3. Write the correct official name and give the dose of the following: Sugar of Lead, White Vitriol, Copperas, Sal Ammoniac, Saltpetre.
- 4. (a) State from what source Iodine is obtained. (b) How much Potassium Iodide can be made from 100 grains of Iodine?
- 5. (a) Give the official name of Cream of Tartar, and from what source is it obtained? (b) What acid does it contain, and how may it be separated?
- 6. (a) How may Arsenic be detected in Bismuth Sub-Nitrate? (b) How may Bi-Chloride of Mercury be detected in Calomel? (c) How may Nitrate of Silver be detected in solution?
- 7. (a) Write the chemical formula for the following: Citric, Tartaric, and Carbonic Acid. (b) Name an official preparation made from each.
- 8. (a) If you mix Sulphuric Acid with Water, Nitric Acid, and Sulphate of Iron, and heat them, what results? (b) Give a test for Ferrous Sulphate.
- 9. Give an outline of a process for the examination of a piece of bread supposed to contain strychnine.

10. (a) From what chemicals is Monsel's Solution made? Give its official name. (b) What is the chemical difference between Monsel's Solution and Liquor Ferri Tersulphatis?

IDENTIFICATION.

- | | | |
|----------------------|-----------------------|------------------------|
| 1. Sodium Chloride. | 8. Fennell Seed. | 15. Canella. |
| 2. Ammon. Chloride. | 9. Sassafras Pith. | 16. Elder Flowers. |
| 3. Boracic Acid. | 10. Sage. | 17. Linimenta Saponis. |
| 4. Potass. Nitrates. | 11. Wild Cherry Bark. | 18. Spts. Nitre. |
| 5. Licorice. | 12. Quassia. | 19. Spts. Chloroform. |
| 6. Potass. Bromid. | 13. Squills. | 20. Syr. Rhei. Arom. |
| 7. Sugar Milk. | 14. Cascarilla. | |

Respectfully submitted.

S. H. MELVIN, President.

W. M. SEARBY.

J. W. WOOD.

J. H. FLINT.

R. J. VAN VOORHIES.

H. J. FINGER.

JOHN H. DAWSON, Secretary.

GRADUATES IN PHARMACY.

Graduates in Pharmacy are persons who have had four years' experience in stores where the prescriptions of medical practitioners are compounded, and each must have obtained a diploma from a legally constituted college of pharmacy.

Abbey, C. C.	Clough, F.*	Gates, E. P.*	Jeffrey, F. D.*
Abraham, C. J.	Cleary, S.	Gerdes, H. G.*	Johnson, E. T.
Adair, W. H.*	Cody, N. L. A.*	Gibson, M. R.	Johnson, W. H.
Aitken, L. S.*	Collins, R. S.*	Gilbride, P. J.	Johnson, E. F.
Amsden, W. G.	Conlan, F. J.*	Glaser, E. F.	Johnson, W. P.*
Anderson, J. S.	Cook, J. J.*	Goodman, E.*	Johnston, W. S.*
Argenti, J. J. B.	Cox, L. H.	Goodman, Laura*	Joy, E. W.
Bagley, H. F.*	Crew, H. W.	Gray, N.*	Jorgensen, E. B.*
Ball, H. A.	Cupples, G. W.	Graham, T. D.*	Jones, Jr., J.†
Bandel, E. F.*	Dahman, F. C.	Grazer, F. A.	Jones, A. S.*
Barrington, C. L.*	Davis, W. J.	Green, J. A.	Kelsey, J. E.
Barndollar, H.	Dawson, J. H.*	Grewe, L. F.	Kelsey, H. D.*
Baumgartner, J.	d'Artenay, E.*	Green, G. A.*	Keller, C. E.
Beaizley, G. T.*	Demond, O. J.*	Griffin, L. F.	Kelton, J. O.*
Beck, H. M.	Devine, Jno.*	Gydison, C. T. L.*	Kidd, A. J.
Beckett, F. A.	Dewille, E.*	Hahman, P. T.*	Kirkham, W. A.*
Besthorn, H. E. D.*	Des Marias, L. N.	Hall, B. F.*	Kruehl, F. J.*
Bernheim, M. R.*	Derge, P.*	Hammit, C. H.*	Krough, F. P.*
Bierbach, O. A.	Dignan, M. H.*	Haman, H.*	Kurtz, A. M.*
Bley, A. A. W.*	Diesbach, W. F.*	Hance, B. F.	Laist, Jr., O.*
Blum, J. H.*	Donaldson, J. G.*	Harvey, G. J.	La Master, H. G.
Boehme, C. A.*	Dowdall, R. J.*	Harris, L.*	Ladd, H. L.
Boswell, F. M.*	Dore, C. W.*	Harris, H. R.†	Læ Rue, D. D.
Boyken, A. *	Driscoll, F. I.*	Hassler, W. C.	Lawson, O. V.
Brown, L. B.	Driscoll, F. A.*	Hawkins, G. W.	Leber, A. L.
Broderick, D. J.*	Druehl, L. A.*	Hazen, E. A.*	Leet, R. A.
Brown, J. H.*	Elliot, J. E.*	Hedrick, W. M.*	Leithold, J. V.*
Browning, W. P.	Ellington, A. W.*	Helke, W. L.*	Link, V. A.
Burnett, G. G.	Emerson, H. B.	Heinzeman, E. A.*	Lernhart, A.*
Bussenius, A.*	Emde, G. H.	Heider, F. B.	Lippen, H.*
Burtwell, H. J.	Evans, E. E.*	Henderson, D. L.*	Lindsay, F. G.*
Callender, E. G.*	Engstand, A. B. E.*	Herzfeld, H.*	Logan, M. H.
Calvert, J.	Fevrier, J. P.*	Higgins, C. C.	Lyon, J. A.*
Calegaris, J.*	Finch, Sophia J.	Hildebrandt, F.	MacIise, J.*
Cavagnaro, A. A.*	Fitzell, C. R.*	Hoover, U. G.*	Macfarlane, W. S.
Casselman, J. M.*	Fitzell, L.*	Hueter, Jr., G. A.*	Marett, M. H.*
Cauch, J. R. *	Fletcher, D. M.*	Hughes, S. F.	Martin, C. B.*
Cerf, J. T.	Flint, J. H.*	Hulting, F. B.*	Martin, H. J.
Chard, G. R.*	Flint, G. E.	Hurtzig, W. F. N.	Martin, R. S.*
Chilson, H. G.*	Fox, A. S.*	Ing, Jr., J. C.*	Maserang, J.
Churchill, J. P.*	France, W. M.	Inman, T. G.	Mathews, J. E.
Christopher, J. T.*	Gardner, F. A.*	Ives, H. L.	Mehrtens, J. K.*

* Re-registered to date. † Deceased.

GRADUATES IN PHARMACY—Continued.

Medros, J. J.	Olds, G. L.	Scholl, A. L.*	Vanzant, R. H.
Meek, W. H.	O'Neil, A. E.	Schick, G.	Van Zandt, C.
Messing, L. P.*	Oreña, A. G.	Seifert, C. A.	Vandike, E.*
Mergill, G. E.	Otto, J. S. J.	Sexton, C. L.	Virden, E.*
Meyer, A. W.	Park, H. L.*	Selzer, M. J. E.*	Voeckell, H. G.
Miller, J. E.	Paynter, W. S.	Shumate, T. E.*	Vogel, J. R.
Minor, G. W.†	Patterson, F. F.	Simmons, H. M.*	Vogel, R. F.*
Mittelbach, H.*	Peiffer, W. C.*	Skinner, R. W.*	Volkman, M. F.*
Moeszinger, P. P.*	Perkins, P. J.	Skinner, E. E.*	Von Werthern, J.*
Moore, B. W.	Peters, C. J.*	Skilling, H.*	Walsh, A. D.*
Moore, C. C.†	Pooler, C. B.*	Skinner, J. B.	Waller, J. L.
Morgan, C. L.	Prewett, S. W.	Smith, C. K.	Waldron, V.
Morrison, F. T.*	Ray, F. E.*	Smith, W. C.	Warren, J. S.
Mueller, E. A.	Rees, D. R.*	Smith, K. B.*	Ware, J. H.
Munson, J. G.*	Reilly, E. C.	Smith, A. H.	Ward, A. J.
Muse, A. E.*	Reilly, P. H.	Squires, H. J.*	Ward, P. H.*
McCarthy, J. H.*	Richter, O.†	Stange, C. F.	Weihe, O. A.
McCutchen, T. L.	Rimpau, F. T.	Steinhauser, E.*	Weeks, Jr., J. A.
McClure, R. J.	Roese, C. H.	Stone, Bertha I.*	Weck, C. E.*
McElroy, J. B.	Roche, T. B.	Stern, A. A.	Wedekind, W. J.*
McDonnell, S. A.*	Root, G. A.	Strehlke, L. F.*	Weschcke, E.*
McKie, J. H.*	Rosenfeld, E. A.	Taylor, W. A.	Westlake, L. J.*
McKelvey, W. O.	Ross, G. I.*	Teubner, C.*	Whiteside, A. F.
McLaughlin, W. H.	Rowe, F. W.	Thevenet, E. J.	Whitney, W. B.
McMurdo, J. R.	Royer, C. H.	Thomson, M. S.	Williams, L. E.*
McMaster, H. G.	Runyon, E. W.	Tobriner, I.	Winter, C. H.*
Newby, T. S.*	Rubel, C. C.*	Trask, H. C.	Wood, J. W.*
Neal, C. W.*	Ryan, P. A.*	Topley, J. H.*	Worth, T.*
Newman, F. H.	Samuels, E. H.	Topley, W. H.*	Wollenberg, C. M.
Neergaard, S. H.	Scamell, J. W.*	Trautz, O. G.*	Wulzen, Jr., D. H.*
Nichols, H. S.	Schmidt, E. V.*	Troppman, C.	Yarndley, R. E.*
Oberdeener, G.	Schneider, H. R.	Trout, J. H.*	Young, J.*
Oberdeener, S.*	Schuldt, H. F.	Turner, G. S.*	Zilioux, D.†
O'Grady, J. J.			

* Re-registered to date.

† Deceased.

LICENTIATES IN PHARMACY.

Licentiates (by examination) in Pharmacy are persons who have had four years' experience in stores where the prescriptions of medical practitioners are compounded, and who have passed an examination before the State Board of Pharmacy.

Licentiates in Pharmacy (without examination) are persons having four years' experience who have presented satisfactory credentials of their attainments to the Board of Pharmacy. This would include persons holding certificates of the same character and value as the degree "Graduate in Pharmacy," but not so worded.

Acton, Y. J.*	Byler, C. M.*	Eckhardt, E. W.*	Grimes, W. V.
Acklin, M.	Carlisle, F. W.*	Egeling, B. F. G.	Gutierrez, A. G.*
Alexander, J. F.*	Catlett, B. F.*	Eggert, F. H.*	Hall, C. E.
Anderson, C.*	Chandler, H. F.	Eichler, A.	Harper, S. A.*
Anderson, C. E.*	Chelgren, A. H.*	Enos, J. P.*	Hascal, E.
Apel, F. E.*	Churchill, F. C.*	Ewing, J. L.	Hawthorne, A.*
Argenti, F.*	Clark, A. C.*	Exton, T. C.*	Hauman, A.*
Avery, C. W.*	Cleave, S. W.*	Falck, F.	Heinzeman, C. F.*
Baer, F. V.*	Collins, F. J.	Faulkner, C. P.	Heick, W.
Bacon, F. R.*	Colpe, C. H.*	Fauda, C.*	Hertzberg, F.
Baker, J. B.	Cook, H. C.*	Ferre, A. E.*	Herriott, D.*
Bayly, R. J.	Coon, G. M.*	Ferre, M.	Hicks, W. T.*
Bare, E. R. L.	Cork, W. H.	Finger, H. J.*	Hill, H. W.*
Baum, H. R.*	Corbin, L. E.*	Fosdick, E. H.	Hill, E. E.
Bayly, Jr., C. A.*	Covillaud, W. P.	Forster, W. M.*	Himmelsbach, W.*
Benzinger, R.*	Cragin, V. R.*	Freeman, J. J.*	Hitchcock, F. N.*
Berger, C. G.*	Crowley, T. J.*	Furnald, T. H.	Hogle, J. W.
Bixby, C. A.*	Cummiskey, F. F.	Fulkerson, A. M.*	Holborow, J. G.
Blaisdell, W.*	Damtoft, K. J.	Gamble, E. A.*	Huff, L. J.
Blackman, G. L.	Davis, L.	Geisler, C.*	Hughes, J. A.*
Booth, J. G.*	Dawson, B. F.	Gearn, G. C.*	Hurrell, H.
Bothwick, R. W.*	Dean, H.*	Gey, B. E.*	Hood, J. W.†
Bothwell, S. F.*	d'Angelis, F.	Gegenbaur, F. A.*	Ingram, J. C.*
Boynton, J. M.*	Deakin, J. W.*	Gerard, G. L.*	Ingram, W. D.*
Boulton, E. A.*	Dennison, R. O.*	Gibson, W. M.	Ingram, C. H.*
Bourgougnon, M.*	De Smet, A. D. E.	Gloria, J. J.*	Irvin, I. A.*
Bowman, R. H.*	Diekoff, B. S.*	Gordin, H. M.	Isaacson, J.
Braddock, O. L.*	Dollinger, C. F.*	Goodell, J. M.	Janney, A. L.*
Brandsch, F.*	Dodel, H.	Graham, F.*	Jackson, W. J.*
Brickey, E. M.	Dowdall, R. E.*	Gray, W. M.*	Jesson, J.*
Bright, J. A.*	Douglass, R. A.*	Grey, F. S.*	Johnson, W. P.
Brown, J. J.	Drost, J. D.*	Green, J. M.	Johnson, M.
Bronson, B. O.*	Duncan, F. T.	Green, J.	Johns, T. E.
Brothers, W. D.*	Eadon, W. H.	Green, F. T.*	Johnston, E. E.*
Brouwer, A.*	Eakin, H. P.	Green, M. P.*	Joseph, C. D.*
Butsch, E. E.*	Eastman, E. J.*	Green, D. B.*	Judd, A. B.

* Re-registered to date. † Deceased.

LICENTIATES IN PHARMACY—Continued.

Kabisius, W.*	Miller, N. N.*	Quigley, G. H.*	Steinmitz, F. J.
Kalliwoda, H.*	Miller, G.*	Ramlot, E.	Stock, W. S.
Kiel, F. C. C.	Miller, Jr., S.*	Rankin, V. A.*	Stocker, W. W.*
Kearney, W. B.*	Mixter, F. W.*	Redmond, J. E.*	Sutherland, G. M.
Keidel, B.	Minier, L. P.	Reeve, J. L.	Sulliger, W. R. H.*
Kennedy, W. C.†	Minier, C. M.*	Richardson, E.*	Talcott, I.*
Kergan, H. S.	Monckton, A.*	Richards, F.	Tanner, E. S.*
Kimball, O. W.	Moody, A. R.*	Richards, R. B.	Tait, E. R.*
Kirkland, D. W.	Moore, W. I.*	Riley, W. C.*	Thomas, W. G.
Knapp, C. R.*	Morehead, G. G.*	Rives, E. B.	Thompson, C. W.*
Knapp, W. B.	McCarthy, F. J. T.	Rigg, T. J.*	Thomas, A. B.*
Koehler, P.*	McCartney, W. E.*	Roberts, C. H.	Thompson, W. B.*
Kratzenstein, C. C.*	McDonell, C. A.	Robinson, J.	Traill, G. E.
Kring, F. G.*	McDonald, C. K.	Rooney, J. H.	Truppel, R. S. [A.*
Krakau, J. H. W. E.*	McIntyre, A. G.*	Rose, H. J.	Trubenschcnck, N. H.
Lacey, D. S.*	McKinney, A. C.	Rossi, D. P.*	Tvede, H.
Lang, A.*	McLaughlin, J.*	Ruffin, D. T.*	Van Voorhies, R. J.*
Lanier, R.	McMillan, W.*	Russell, J. C.†	Van Valkenbergh, W.
Langdon, F. S.*	McMaster, A. D.*	Russel, J. P.	L.
Lang, A. C.*	McMorry, P. F.*	Sadler, A.	von Radesky, C. W. R.*
Lawrence, G. W.	McQueen, H. M.*	Sanford, J. A.*	Wagner, H. W.*
Lawrence, A.*	Neuman, E.	Sangster, J. E.*	Waltenspiel, G. A.*
LeBrett, E. W.	Newlon, H. M.*	Schwartz, N.*	Walker, C. C.*
Lengfeld, A. L.*	Newton, J. C.*	Schmidt, A. O.*	Walters, E. A.
Leithead, W. W.	Nichols, H. V.*	Schlotterbach, P. L.*	Ward, R. M.*
Lengfeld, J. L.*	Norton, J.	Schlott, D. C.*	Watters, A. J.*
Levy, E. G.*	O'Farrell, F.*	Searby, W. M.*	Webb, H. H.*
Leroux, A.†	Olsen, A.*	Seay, W. W.*	Wilson, F. H.
Lewis, W. B.*	Ott, F. S.*	Sexton, J.*	Wilson, G. O.*
Lewis, C. H.*	Owen, F. D.*	Senor, L. D.	Wickizer, H.*
Lichterman, W.	Pabst, F.	Sharp, S. A.*	Wiedemann, M.
Liscomb, A. H.*	Parker, J.*	Sherwin, E. A.*	Wingate, J. B.
Lord, T. N.*	Parker, W. S.*	Slack, J. J.	Winch, F. C.
Lynch, O. J.*	Patton, J. C.	Smith, R. H.*	Winter, J. H.*
Ludewig, G.†	Polk, C. W.*	Smith, H. L.*	Wolf, F. C.*
MacLeod, J. A.*	Potter, Grace M.†	Snedden, M. B.*	Wood, I. N.*
Martindell, C. W.	Printz, C. G.	Southall, S. J.*	Wolff, W. J.*
Melvin, S. H.*	Price, T.*	Sollenberger, S.*	Yardley, H. E.*
Mendel, L. C.	Puck, R. F. S.	Sporndli, E.*	Young, A. L.*
Messer, H. F.*	Pursey, F. J.*	Staples, Jr., E.	Zimmerman, J. M.
Metcalfe, H. F.*	Quirin, F. J.		

* Re-registered to date. † Deceased.

PRACTICING PHARMACISTS.

"Practicing pharmacists are persons who, at the passage of this Act, are conducting pharmacies in this State for compounding and dispensing of prescriptions of medical practitioners, and for the sale of medicines and poisons."

Abel, W. H.*	Barnickel, Anna *	Brackett, A. S.	Campbell, G. W.
Abbott, E. K.	Barber, R. D.*	Bristol, H. R.*	Carman, W. P.*
Ackerman, F. S.*	Bates, C. M.	Brewer, T. R.	Carroll, G. L.
Adams, A. L.*	Baxley, G. W.*	Brooks, H. C.*	Cargill, C. G.
Adams, I. N.	Bates, C. B.*	Broemmelm, J. G. B.*	Carson, N. R.
Agee, C. W.*	Baxter, H. W.	Brownridge, P. F.*	Carper, P. D.*
Aitken, R. B.*	Bassin, J.*	Browne, J. D. H.*	Caroway, P. C.*
Alden, S. J.*	Bayly, C. A.*	Brown, Jr., T. W.*	Carr, J. E.*
Akey, J. V.*	Bathurst, E. W.	Brown, M. W.*	Carr, T. H.*
Alford, W. B.*	Battelle, E. L.	Brown, F. R.	Chase, C. A.*
Allen, E.	Bassett, M. F.*	Bryan, W. J.	Case, C. A.*
Allen, W.*	Beckwith, J.*	Bryan, B. F.	Case, W. H.*
Allen, Mrs. N. S.*	Beckwith, W. N.*	Buehler, W. H.	Case, C. E.
Allen, G. S.*	Bedford, A. D.*	Buehler, J. J.	Cauch, J.†
Alley, S. B.†	Bear, B. L.*	Buker, H. O.	Castaing, T.
Anthony, J. C.	Bean, C. E.*	Burns, J. A.†	Chapman, P. F.*
Angell, F. A.	Bellan, M. J.*	Burns, Mrs. M. W.*	Chapman, F. J.*
Angell, H. V.	Bell, R. E.*	Burks, L.*	Chambers, G. H.
Angell, J. W.*	Bennett, L. McG.*	Butler, P. H.*	Chang Shong Chew
Aplin, W. D.*	Benner, H. E.	Bush, I. C.*	Chan Yick Chow
Armstrong, C. W.*	Bennett, W. C.*	Burdish, J.*	Chin Pow
Armour, E. E.*	Bertolacci, G. T.	Burton, B. T.	Chin Leong Goe
Armour, Cora L.*	Bertholf, C. F.*	Burbeck, H. A.*	Chin Foo Yen
Armistead, J. H.*	Billings, R. F.*	Butler, J.*	Chin Lim
Arnheim, J. S.*	Binder, F.*	Butler, W. L.*	Churchill, J.*
Armstrong, M.*	Blake, T. F.*	Burnham, J. H.*	Churchill, W. H.
Armistead, H. V.*	Blair, J. D.*	Burnett, G. W.*	Chubb, M. P.*
Ashim, B. J.*	Blodget, S. L.	Butcher, R.	Chong Wa Tong
Austin, S. A.	Blaske, A.	Byrne, J. D.*	Clark, G. W.
Autenrieth, E.	Black, C. A.	Bodle, F. S.*	Clapp, G. H.*
Averill, Maria B.*	Bogel, E. J.	Bussenius, H. R.	Clark, J. E.
Ayers, E. N.	Boscher, E. H.*	Breeck, W. A.†	Clark, S. H.*
Ayres, W. W.	Booth, A. R.*	Caldwell, B.*	Clayes, S. R.*
Baer, E. A.*	Botto, D.	Caldwell, S.*	Clark, J. L.
Bagot, E. A.	Bos, C. F.	Callisch, L.*	Clifford, J.*
Bacon, T. F.*	Boyken, J. W.*	Callender, J. A.*	Clement, G. C.
Baker, E. H.*	Boyd, L.*	Cain, C. V.	Clipfel, J. C.*
Baker, J. T.*	Bowen, P. M.	Campbell, J. W.*	Clinton, C. A.*
Baker, O. D.*	Bjysen, J. H.*	Cannan, D.*	Cody, N. T.*
Baker, F.	Bowman, W. J.*	Canterbury, M.†	Coffin, R. W.*
Baldrige, W. H.*	Bowman, H.	Campbell, W. W.*	Coady, F. W.*

* Re-registered to date. † Deceased.

PRACTICING PHARMACISTS—Continued.

Cole, W. K.*	Diggles, H. J.	Fearn, J.*	Gove, D. M.*
Colson, W. C.	Diggles, J. A.*	Ferris, A. M.*	Gray, B. F.*
Collette, L. P.*	Dickinson, F. S.*	Ferris, C. I.*	Grant, C. F.
Collins, R. E.*	Dillon, J. F.*	Fee Ti Tong	Graham, R. L.*
Coleman, J. A.	di Nola, L.	Fife, C. C.*	Graves, G. M.*
Collins, H.	di Nola, A.	Findlay, J. W.	Gray, J. D.
Coldwell, D. R.†	Dixon, E. T.*	Fischer, C. W.*	Grover, J. F.
Coldwell, Ada H.	Dodge, M. H.*	Fischer, E. C.*	Green, R. M.*
Combs, H. W.*	Dolley, L.*	Fischer, E. L.	Green, T.
Conant, C. H.*	Dodge, W. L.*	Fischer, M.	Gregory, J. R.*
Cook, J.*	Dodge, H. W.	Flatow, P.*	Greenberg, N. G. W.*
Coon Chang Lung	Donahue, H.	Flint, T. J.*	Gregory, E. B.*
Copeland, A. C.*	Downes, C. S.*	Flint, G. B.*	Greenleaf, T. A.*
Coster, A. J.*	Doyle, B. B.*	Foley, R. E.*	Greenleaf, W. H.*
Coulson, J.	Dozier, B.	Fong Lee	Green, W. W.*
Cowan, W. L.†	Doughty, W.*	Fong Man Low	Grimes, F. A.*
Cozens, T. W.*	Dows, B. W.*	Forster, H. C.	Griggs, J. H.
Cozens, C. B.*	Drury, J. S.*	Ford, H. D.*	Grimshaw, H.
Crackborn, L. S.*	Draper, J. S.	Ford, C. C.	Grove, J. H.
Crane, L. T.*	Drewitz, A. C.*	Foster, H. J.*	Groover, J. I.
Crews, B. F.*	Drossell, J. H.*	Fouch, J. F.*	Groton, J. L.*
Cross, W. S.*	Driver, J. W.*	Freeman, G. H.*	Groton, W. D.*
Cross, H. H.*	Dugan, H. F.*	Fritz, J.*	Gutierrez, B.*
Cunnane, J. B.*	Dudley, T. H.*	Fryer, C.*	Guirado, R. C.*
Cutler, G. A.*	Duff, M. F.	Fryer, D. F.*	Gee Wing Tong
Curless, G. W.	Dubois, P. A.	Friedhofer, W. F.*	Hainline, C. G.*
Curless, W.*	Dunlap, J. R.*	Fuller, C. F.*	Hahn, J.
Cutter, E. A.*	Duprey, A. I.*	Fullerton, G. E.†	Hall, Clara*
Cutler, L. H.†	Dunshee, F. M.*	Fung Nam Schlew	Hammer, M. S.*
Darrough, C. H.*	Dutcher, E. W.	Fook Wo Tong	Hammond, C. E.*
Daggett, M. H.	Dwyer, J.*	Gallwey, J. A.	Hamlin, B.*
Daggett, H.*	Eberlein, E. C.*	Gagen, W. H.*	Ham Chy Quong
Dahlbender, G.	Edmiston, Nina*	Gardner, W.*	Hanson, G. F.
Davis, E. P.*	Ekstein, A.*	Garrison, J. G.*	Happersberger, E.*
Davis, M.*	Ekman, N. A.*	Garrett, J. R.*	Hance, C. H.*
Davis, J. W.*	Ellis, T. E.	Gates, J. R.*	Handel, D.
Davis, W. K.	Ellis, L. T.	Gatliff, W. W.*	Harding, J. H.*
Day, O. G.*	Elmore, R. H.*	Gates, J. H.*	Harris, J. M.*
Day, R. L.*	Elbe, C. B.*	Germian, H.*	Harris, Mrs. M. E.
Dean, J. B.*	Elliot, H. A.	Gebhart, E. M.	Hardman, J. C.*
Dean, W. M.	Elmore, A. J.*	Geary, W.*	Hartsough, Jr., C. W.*
Dean, F. C.	Elmore, A. B.*	Giese, T. J.*	Harlan, J. T.*
Dea, Gat	Elwood, F. B.*	Gee Ki Dick	Hassler, A. J.*
Dennis, J.*	Ellert, L. R.	Gee Sing	Hastings, B.*
Dennis, J. D.*	Endicott, J. M.*	Gilli, R. C.	Hayman, J. E.
Dennis, L. M.	Endicott, R. H.*	Gillis, W. T.*	Hedgpith, W. R.*
Delicat, J. F. A.†	Engelhardt, A. E.*	Gilmour, A.	Heath, F. M.*
Deloge, J.	Epperson, P. M.*	Glines, H. A.*	Heath, J. H.*
Devine, J.*	Evans, A.*	Gleaves, C. C.	Henderson, W. McD.*
Deveney, J.	Evans, C. W.	Goble, L. E.*	Hesemeyer, F. W.*
De Witt, T. B.*	Fairbanks, H.*	Godfrey, H. D.*	Herzer, G. A.*
Des Marias, P.†	Fallin, H. C.*	Gogings, Mrs. S. I.*	Higgins, W. M.*
De Voin, S. F.*	Fairchild, W. F.*	Goldner, A.*	Higgins, C. P.*
De Witt, J. W.*	Fasig, H. B.*	Goldaracena, O.*	Hilby, F. M.*
Dial, E. A.	Fay, H.*	Goodenough, R. A.	Hill, W. S.*

* Re-registered to date. † Deceased.

PRACTICING PHARMACISTS—Continued.

Hoffman, W. A.*	Jones, H. C.*	Laughlin, J. B.*	May, J. A.*
Hobson, J. C.*	Jow Li Hong	Lee, Wesley†	Mayer, B.*
Holden, I. D.*	Jordan, H. J.*	Leman, L. E.*	Maynard, H. H.*
Holloway, B. E.	Joeuger, W. H.*	Lee, L. R.*	Mathis, C. H.*
Hohlweg, F.*	Jung Ah Chew	Lee Jack	Maynard, F. T.
Hong Wo	Jue Han Hing	Lee Him	Mayhew, W. E.*
Holman, M. C.†	Jung Ah Cheung	Leibrich, E. F.	Meddaugh, O. E.*
Hong Chong	Keach, A. M.	Leipnitz, G.†	Meador, Isabel M.
Hopkins, T. P.*	Keene, E. B.	Levinson, J.*	Mervy, A. J.*
Hood, Mrs. L. E.†	Keller, F. W.*	Lilly, W.	Mentz, C. H.*
Horne, W. A.*	Kellogg, H. D.*	Littleboy, A. E.†	Merchant, W. T.*
Horsnyder, J. H.*	Kelly, F. J.*	Lindsley, A. W.*	Melvin, W. P.*
Houseworth, E. C.*	Kelly, F. S.*	Lindsay, J. C.*	Mentor, M.
Hornung, G.	Kern, C. A.	Lomelino, A. C.*	Miller, B. F.*
Houx, J. L.	Keser, F. H.	Lomelino, J. W.*	Miller, J. H.*
Howe, J. E.*	Kerrick, J. H.*	Loehr, G. W.*	Miller, J. M.*
Hubachek, J. H.*	Kent, R. W.	Lim Ow Gooley	Miller, W. P.
Hudgin, E. L.	Kilbourn, C. M.*	Log Ong	Miller, W.
Hubbard, J. C.	Kimball, W. S.*	Long, E. E.*	Miller, W. H.†
Hubbard, F. M.*	Kilbourn, H. B.*	Lonergan, J. J.*	Miller, H.*
Hubbard, G. M.*	Kibbler, W. T.	Lopizich, J.*	Miller, H. A. F.*
Hunt, D. D.	Kinney, L. C.*	Long, S. W.	Miller, L.*
Hughes, J.†	Kittredge, C. S.*	Longenecker, G. H.*	Millard, F. R.*
How Goon	Kleyer, E.†	Loo Bing Sing	Mitchell, J. H.*
How He	Kirk, Mrs. Jennie*	Lovejoy, J. H.*	Minor, J. F.
Hung Tuck Tung	Kirk, H. S.*	Loutzenhieser, J. G.*	Mithell, J. S.*
Huntington, H. L.*	Kirby, A.*	Loutzenheiser, W.*	Monroe, G. H.*
Huntington, W. D.*	Knox, R. J.*	Lovett, W. B.	Montgomery, P. C.*
Hunter, W. W. W.	Knotwell, J.*	Low Lin	Moesser, F.
Hunt, D. W.*	Knott, G. R.*	Lum Wing Quai	Moody, R. F.*
Husband, J. W.*	Knox, G. A.*	Lum Nong Chew	Moore, H. H.*
Hutchinson, G. L.	Knox, C. D.*	Mack, W.	Moore, F. E.*
Hyde, W. T.	Kosby, A. E.*	Mack, W. E.	Moore, Mrs. U.*
Holladay, E.*	Kolliker, F.*	Mack, O. E.	Moore, E.*
Hong Yuen Tong	Koser, N. A.*	MacGibbon, E. E.	Morse, L. G.*
Hong Wo Tong	Krebs, E.†	Macy, C. F.*	Morehead, G. A.*
Ingram, H.*	Krug, A.*	Mahoney, J. J.*	Morton, T. S.
Ingram, W.*	Krough, P. P.*	Magee, J. N.	Morey, C. E.*
January, J. J.*	Kuhlman, C.*	Maggard, W. F.*	Morse, C. M.*
Jackson, F. F.*	Kupfer, F. J.*	Makemson, W. S.*	Morgan, B.
Jesse, J. W.	Laird, S.*	Manderschied, C.*	Mott, H. V.
Jerman, T.*	La Boyteaux, C. H.*	Maline, J. J.	Mott, Mrs. M. T.
Jenkins, Jr., T. J.	Laird, J. T.	Manning, J. M.	Mouron, Mrs. A.*
Jen Wing Chow	Lamb, J. A.*	Martin, J.*	Murray, J. R.
Johnson, G. A.*	Lane, Mrs. M. A.	Marquis, W.*	Murray, J. D.†
Johnson, S. F.*	Laubersheim, A.*	Markell, R. S.*	Murphy, L. D.*
Johnson, D. E.*	Latimer, B. G.*	Marvin, G. D.*	McBride, E. J.*
Johnson, C. R.*	Lawson, W. H.*	Marshall, S. L.	McBoyle, A.*
Johnson, H. M.*	Lasley, C. C.*	Marsh, G. W.*	McCoy, Martha*
Jones, C. F.*	Lash, T. M.	Mason, D. E.*	McConnell, Martha*
Jones, J. T.*	Laughlin, B. E.*	Mason, E. C.	McComas, R.*
Jones, P. W.	Laux, C.*	Mason, G. T.	McComas, H.*
Jones, T. H.*	Lasch, J. J.*	Mathews, J. R.*	McCullough, F. E.
Jones, T. E.*	Lawrence, C. E.*	Maxwell, W. A.*	McCartney, W. S.*
Jones, O. L.*	Lazare, H.	Maxwell, R. J. W.	McCarthy, T. B.*

* Re-registered to date. † Deceased.

PRACTICING PHARMACISTS—Continued.

McCurry, L. W.*	Perrin, T. C.*	Ring, J. H.*	Simmons, W. A.*
McDermott, A.†	Peters, T.*	Riley, J. A.	Sing Hop*
McDermott, W. P.*	Petibeu, E.	Riley, T. J.	Skinkle, Jr., A.*
McFarland, Abbie	Phelan, C. E.*	Riley, L. K.	Sledge, J. R.
McGovern, F. P.	Phillips, T. F.	Riggs, J. S.*	Smead, C. R.
McGeorge, W. J.	Phillips, M.*	Riggins, G. A.*	Smith, A. E. H.*
McGuire, T.*	Pierce, L. W.*	Rinn, T.*	Smith, A. W.*
McIver, D. B.*	Pickering, W.†	Robbins, G. L.*	Smith, G. H.*
McKean, W. G.*	Pixley, W. B.	Robinson, J. G.*	Smith, W. A.*
McKown, J. O.*	Po Tai Yuen	Robson, H. P.*	Smith, W. H.*
McKinnie, F. C.	Quong Hai Lung	Robertson, J. C.	Smith, A. A.*
McKee, J. A.*	Quong Hip Wo	Rockwell, L. A.*	Smith, G.*
McKean, W. P.*	Quong Sang Tong	Rogers, S. S.*	Smith, V.*
McLaughlin, J. B.*	Quong Tuck Tong	Roethe, C. H.*	Smith, F. W.
McLaughlin, M. A.	Plummer, E. J.*	Rosenberger, S.*	Smith, T. H.*
McLean, S. M.†	Pond, H.*	Rosenberger, W. D.*	Smith, Miss V. P.*
McMurray, M.*	Pond, W. R.*	Rossi, P. C.	Smith, L.*
McMillen, D.*	Pockman, L. H.*	Rowley, C. H.*	Smith, C. C.*
McNamara, N. J.*	Poggi, I. M.*	Rowley, A. R.*	Snow, W. F.
Nanscawen, L. V.	Powell, R. B.*	Rule, J. W.*	Snodgrass, W. B.
Newman, C. C.*	Pow Wo Tong	Ruiz, L. F.*	Soule, A. J.*
Neal, H.*	Pratt, E. B.*	Ruiz, A. M.*	Sowell, J. W.*
Nicholson, E. J. H.*	Prindle, E. C.*	Rutledge, W.*	Soo Hee Yee Fong
Nieman, J. H.	Pryor, W. A.*	Ryan, D.*	Spagnoli, D. B.*
Ng Yee Gung	Pring, E.*	Sain, J. H.*	Sprecher, G. A.*
Norman, G. H.†	Pruett, J. A.†	Saeger, B. L.*	Spengler, E. P.
Noe, G. T.*	Prosser, A. M.	Salter, J. W.*	Spalding, J. B.*
Norton, L. E.*	Prosser, J. D.	Sacry, G. A.*	Spitz, G.
Noyes, C. F.*	Putman, J. E.†	Sale, H. M.*	Spieker, J. J.*
Noble, C. H.*	Pye, R. J.*	Sale, L. D.*	Spoor, W. L.*
Noble, E.*	Quong Wo Lang	Sanborn, A. P.*	Spivey, T. A.*
Norman, E.*	Quong Hong Hi	Sandelin, F.*	Stanton, W. M.*
O'Connor, D. L.*	Quong Sun Tong	Saunders, D. C.*	Stafford, A. M.
O'Callaghan, J. S.	Quock Wy	Saunders, Z. W.*	Starbuck, W.*
O'Connell, F.*	Ramsay, E. H.*	Sargent, J. S.*	Starbuck, Flora*
Oesting, P.*	Ramsay, J. G.*	Saxton, C. P.	Starbuck, Alva*
Off, J. W. A.	Rasmussen, R.*	Schultz, P.*	Stevens, S. M.*
Ogborn, M. E.	Rawlings, E. E.*	Schlessinger, G.†	Steele, J. G.*
Osgood, H. L.*	Randall, C. W.*	Schneider, B.*	Steinhauser, A. M. B.
Osgood, F. S.*	Rattan, F.	Schmelz, C. J.*	Stewart, D. W.*
Palmer, S. A.*	Rapp, W. H.*	Schunhoff, B. F.*	Stewart, R. R.†
Packard, C. O.*	Ray, D.*	Schoenheit, A.*	Stewart, W. McK.*
Parke, E. T.*	Redfield, T. B.*	Schmidt, V.*	Steinhauser, J. G.
Parr, W. W.*	Redfield, J. A.	Scott, J. B.	Stephen, J. I.
Parrish, H.*	Reed, J. D.*	Scribner, J. C.†	Stilson, W. E.
Parrish, Alice	Renfro, T. F.*	Scott, A. E.*	Stinson, C. G.*
Parker, G. W.*	Reid, R.*	Se Brell, J. D.*	Stoddart, A. C.*
Patterson, J. A.*	Reid, R. L.*	Senter, R.*	Stone, N. R.
Patterson, W. A.*	Reid, S. J.	Shaw, H. B.*	Stockmon, D. M.
Paulding, W. B.*	Reynolds, R. G.*	Sharples, R. P.	Stuart, J. W.*
Paul, A. A.*	Rhea, A. R.*	Shelton, J. R.*	Stroud, J. R.*
Pearson, J. E.	Richards, C. F.	Sherman, G. A.*	Stratton, F. M.
Pearson, Mrs. S. J.*	Richmond, G. B.	Sherwood, H. M.	Styles, J. H.
Perkins, E. W.*	Richardson, W. H.*	Shibles, J. N.*	Strahlmann, E.*
Perry, P. P.*	Rider, F.*	Silver, T. H.*	Stratton, J. A.*

* Re-registered to date. † Deceased.

PRACTICING PHARMACISTS—Continued.

Strong, C. G.	Top Lung Tong	Week, F. A.	Wolff, I.
Stroud, H. E.	Tuck Sang Ting	Weaver, C. R.*	Wong Woo
Stroud, Alice M.	Van Horn, F. N.*	Weeks, F. E.	Wong Duck
Stuart, Mrs. Lulu*	Van Fossen, L.*	Weagant, C. A.	Wong Si Pon
Stratton, D. E.	Vaughn, J. W.*	Weitman, C. L.*	Wong Tuck
Surbaugh, J. T.*	Van Haren, F. E.*	Weingartner, E. C.*	Wong Wone
Sulzberger, T. L.*	Van Cleve, F.	Wells, E. W.*	Wong Chong Kee
Swart, A. T.*	Vanderbeck, C. C.	Wells, W.*	Woo Cap
Sun Kue Kee	Vail, J. K.	Wentworth, C. O.*	Woodward, J. A.
Simpson, W.*	Vinton, W. D.*	Wentz, G. A.*	Wood, F. A.*
Taggart, E.*	Viole, J.*	Wessenberg, D. W.*	Worland, H. C.*
Tanner, J. G.*	Voje, J. C.	Wetmore, Jr., G. H.*	Woodruff, D. S.*
Tarter, A. P.*	von der Leith, F. H.*	Wesscher, J. H.†	Wrede, T.*
Taylor, W. N.*	Voluntine, Kate*	White, R. E.*	Wright, H. E.
Taylor, H. W.	Wagener, S. H.*	White J. W.	Wright, N.*
Thompson, L. H.*	Wait, C. E.*	Whipple, J. M.*	Wright, L. A.*
Thompson, N. S.*	Wait, G. S.*	White, J. O.*	Wright, A.
Thompson, L. Q.*	Wait, G. Z.*	Whitaker, A.†	Wright, W. M.
Thrasher, M.	Walker, J.	Whitehorn, S.	Wright, G.
Tilley, G. H.	Walls, B.	Whitworth, G. F.	Wynne, H. F.*
Tibbits, L. C.*	Wapple, G.*	Wight, R. B.*	Wyatt, M. O.
Todd, D. B.*	Walters, A. R.	Widber, J. H.†	Yonge, S. G.*
Topley, J.*	Walker, H. W.*	Wilson, B. F.*	Young, J. R.*
Torello, E. N.*	Walden, G. R.*	Williams, E.	Young, J. M.
Towne, F. M.*	Waller, S. L.	Williams, W. R.*	Yee Wo Tung
Toy Gee Tung	Waller, N. B.	Willsey, T. F.*	Yet Sang Hong
Treuholtz, F. E.†	Wall, P.*	Willis, O. P.*	Yet San Tong
Treuholtz, E. M.†	Warren, E. E.*	Williams, J. R.*	Yee Mee Chong
Trask, E.	Washburne, M. A.*	Wilkins, F.*	Yee Doo
Tremblay, F. X.	Warren, G. R.*	Wilson, W. L.*	Yun Lun Chee
Trewartha, Jr., S.*	Warboys, J. W.*	Wing On Tong	Zabaldano, A.*
Trull, F. W.*	Washington, H.*	Wing Ti Lung	Ziele, C. D.*
Trowbridge, H. O.*	Waugh, H. H.*	Wing Fay	Zeilin, W. S.*
True, A. A.*	Watkins, F. F.*	Wishart, W. A.*	Zeh, L.*
Tufts, A. C.*	Watson, V. B.*	Witter, D.*	Zelner, W.*
Tuck Wo	Webster, J. A.*	Winter, W. H.	Zipf, J. P.*
Tullis, T. E.†	Wegner, E.*	Wolfe, J.	Zimmerman, G. W.*
Tuttle, C. K.*	Webster, M.*		

* Re-registered to date. † Deceased.

ASSISTANT PHARMACISTS.

Assistant Pharmacists are persons not less than eighteen years of age, who have had two years' experience, and have passed an examination by the Board of Pharmacy.

Assistant Pharmacists without examination are persons who have had three years' experience in stores where the prescriptions of medical practitioners are prepared, prior to March 11, 1891.

Abbott, C. T.	Bernheim, L. J.	Carr, L. T.*	Cox, H. C.*
Airaldi, A.	Blaske, M.	Carr, J.*	Crane, W. P.*
Akey, W. B.*	Blaisdell, D. M.*	Cauch, R.*	Crane, C. W.*
Alford, M.	Blood, H. H.*	Castle, E. S.*	Crewe, E. O.
Allen, C. C. H.	Bourbon, G.	Caven, C. L.	Crilley, W. M.*
Altar, G. C.	Bowerman, K. B.*	Charette, E. R.*	Cross, Mrs. K. H.*
Allen, F. W.	Boehm, J. J.	Chamberlain, M. A.	Cromett, C. A.
Alsford, W.	Borden, E. G.	Chan Shew	Crowley, J. J.*
Allee, L. T.	Boyle, J. C.	Chang Hing Shong	Cummins, J. W.
Angell, H. B.	Bonney, A. F.*	Chittenden, C. M.	Culver, Lillian A.*
Andrews, S. E.	Boone, J. C.	Chin Jim	Culver, F. G.*
Arne, W. H.	Bramwell, J.	Chin Mun Yee	Cutler, Fannie*
Armstrong, Mrs. N.*	Brink, C. M.*	Chin Ton	Davis, J. F.
Atwood, G. C.*	Bradley, J. W.*	Chin Yee	Davis, H. S.*
Austin, H. W.	Brownlee, W. S.	Christman, W.*	Dawson, R.
Ayers, W. W.	Brannagan, A. J.*	Clapsaddle, P. A.*	Day, H.*
Bacmeister, F. C.*	Brow, F. E.*	Chong Ah Kong	DeCray, F. A.*
Baker, E.	Brooks, W. A.*	Chong Wo	Dean, J. C.*
Barnett H. F.	Brandes, E.	Chun Yuen Jim	Dea Sun
Barkley, S. D.	Bridgman, R. W.*	Chun Jan	de Grancourt, F.
Bayly, C. L.*	Brown, P. A.*	Chue Ky.	Dennis, W.*
Bailey, C. C.*	Brown, S. M.*	Clark, A. A.	DeTurk, W. S.*
Baldwin, E. H.*	Burns, G. A.*	Clark, F.	Dickenson, C. F.
Barnfield, T. H.*	Burnham, F. P.*	Clapp, C. F.*	Diggles, A. M.*
Barre, J. T.*	Buckner, J. P.	Clayes, W. I.*	Dodge, T. A.
Baker, Emma*	Butler, J. L.*	Clifford, J. B.	Donahue, H. M.*
Barber, Dora L.*	Butler, H. M.*	Cohn, I.*	Downes, E.*
Barnard, E. R.	Burnham, W. P.*	Cogswell, F. L.	Dows, O. E.
Bausch, K. M.*	Bussenius, E. J.	Collins, Jr., R. E.	Drake, F. N.*
Bellina, W. E.*	Burks, W. T.*	Collong, W. H.	Dunkle, I.
Bell, B. C.*	Byrne, A.	Connolly, T. W.	Duenkel, B. W.
Bennetts, R. J.*	Callaghan, E. S.*	Cooper, C. J.*	Dufficy, G. W.
Besby, J. A. W.*	Callahan, J. R.*	Cooper, Grace†	Dunnigan, M. W.*
Belt, B. F.	Campbell, J. B.*	Cooper, W.	Dustin, F. F.
Beck, G. L.	Cahill, M.*	Corkery, T.	Eaton, J. P.*
Bending, W. J.*	Campini, V. P.*	Cover, C. A.*	Eberhard, C. E.*
Bergman, F. G. A. H.*	Cannon, G.*	Courvoisier, G. A.	Edwards, W.
Bellan, J. H.*	Cake, H.	Cottle, T. S.	Edelman, G. L.*
Bell, C.	Canning, F. V.*	Costello, N. J.*	Ehrenholm, C. A.
Bennett, R. W.*	Carson, J. L.	Cottle, H. S.	Eitel, J. M. F.*

* Re-registered to date. † Deceased.

ASSISTANT PHARMACISTS—Continued.

Eldredge, F. R.	Goodwim, J. M.*	Hom Chim Fat	Kirk, W. B.*
Elder, C. R.	Gore, W. H.*	Hom Poy	Kirby, C. M.*
Eliason, A. A.	Goodloe, P. V.*	Hooley Fat	Klein, C. W.*
Elstun, J. W.*	Gray, J.*	Hooker, B. A.*	Klock, R. W.
Emmal, W. B.	Graham, L.	Hoover, D. L.*	Knight, F. H.
Emmal, F. B.	Grenell, H.*	Hornung, E. B.*	Knapp, G. W.
Endicott, E. M.*	Grellman, C.*	Houx, G. R.	Krebs, O. F.*
Enriquez, M.*	Gregory, J. N.*	Horan, W. F.	Kwan Ching
Englander, S.*	Green, C. V.	Horne, M.*	Kwock Him
Englund, A. W.*	Griffing, E. B.*	Howland, C. S.*	Lacy, W. B.
Evans, C.*	Groome, F. S.	Howard, F. W.*	Lann, W. H.
Eng Lai Hing	Grover, S. A.*	Hughes, J. H.	Lane, A. J.
Fairbanks, C. D.	Grunig, F. W.*	How Yee	Lane, S. H.
Fatton, L.*	Gunn, S.*	How Wing	Lan He
Faulkner, C. W.†	Gydison, T.	How Chong	Lawton, W. E.
Felt, G.*	Gy Nom	Hom Gim	Lawrence, Frances*
Fearn, J. R.*	Hafner, E. C.*	Hunter, F. A.*	Larkey, F. X.*
Ferbert, J.	Haigh, W. R.*	Hund, G. B.	Larkin, J. T.*
Fellows, M. E.*	Hall, L. D.*	Hyacintha, Sister.*	Lee Shik
Figueiredo, V. L.*	Hall, W. R.*	Hyer, A. F.*	Lee Kee
Finley, N. C.	Hall, G. A.*	Hutchinson, C. S.*	Lee Yui Qui
Fitzgerald, J. A.	Hammer, S. C.	Ingram, C. H.	Lauck, G. A.*
Fletcher, E. L.*	Hammack, G. W.*	Irvine, E. S.*	Lawrence, H. C.
Fong Quong	Hambrock, E. W.	Irwin, G. B.*	Large, C. F.*
Fong Gum	Hanby, P. N.	Jackson, A. W.	Lawrence, J. J.*
Foo Jan On	Hanson, E. W.*	Jackson, F. A.*	Leffler, O. W.*
Forbes, R.*	Hand, F. S.	Jenkins, F. C.	Legge, R. T.
Forbes, F. H.*	Harris, M. U.	Jin Foon	Leitch, J. C.*
Fox, J. E.	Harris, W. T.	Jin Kee	Leithold, G.†
Fouts, W. C.	Harlan, J. W.*	Jin Chung	lengfeld, J. L.
Fraser, T. T.*	Hartmann, O. A.	Jee Chong Lim	Levi, I. B.*
Frank, R. T.	Hatch, W. M.*	Jochumsen, P. F. V.*	Lhote, E.*
Freeman, F. B.	Hawkins, Jr., O. C.	Johnson, L. W.	Lewis, J. E.*
Friend, E.*	Hearn, R. E.*	Johnson, M. F.	Lew Chung
Gaines, F. H.	Heaton, J.	Johnston, W. M.	Lew Sam
Garrison, J. A.*	Hebbard, E. S.	Johnston, C. M.	Lindley, C. S.
Gardner, T.	Heinzeman, Jr., C. F.*	Jones, J. H.*	Lindsley, Josephine*
Gansline, C. W.	Hempstead, F. C.	Jones, Edith	Lichtenstein, Jr., M.
Gates, A. L.*	Heinze, R.	Jones, C. V.	Little, H. W.
Gay, C. L.*	Henry, T. S.	Jones, P. E.*	Lichthardt, Jr., G.*
Gelinas, L. G.*	Herbert, J. P.*	Judson, W. H.	Loeffler, P. H.
Gehring, G. L.†	Heringer, G. H.	Jung Yow	Longdon, C. E.*
Gee Hung	Herington, H. M.	Kampe, F. W.*	Loutzenheiser, W. H.*
George, C. H.*	Herminover, A.*	Kannengeiser, V.	Lovotti, F.
Ghiglieri, G.*	Higgins, T. J.*	Kelly, W. A.*	Lovelace, A. M.
Gibson, J. T.*	Hickman, W. M.*	Kellogg, W. H.	Lim Sue Sun
Gibson, Jr., A.	Hickman, H. W.	Keller, G. P.*	Ly Gum
Gienger, C. J.	Hills, A. P.*	Kennedy, P. H.	Maccabe, E. E.
Gibson, E.*	Hill, C. E.*	Kerr, R. H.*	Mack, F. H.
Gilfether, A. J.	Hill, E. L.*	Kennedy, M. A.*	Macdonald, J. S.
Gilliland, H. F.*	Hillebrand, W. F.	Kidder, L. A.*	Mangels, W. F.*
Gilmour, S. E.	Hill, A. S.*	Kibler, N. W.	Mandershied, O.*
Gleeson, J. J.	Hogan, J. J.	Killeen, A. J.	Malone, T. S.*
Glover, A. J.	Hogg, A. H.	Kieferdorf, F. F.*	Martin, W. H.*
Gleason, T. F.*	Holdsworth, J. B.*	King, W. H. V.*	Martin, E. M.

* Re-registered to date. † Deceased.

ASSISTANT PHARMACISTS—Continued.

Mar Lim	Newell, F. B. R.	Poage, J. H.*	Scholl, O.*
Marsh, A. L.*	Neville, F. R.	Powell, H. B.*	Scherb, H.
Matsumaru, G.*	Nelson, G. H.	Pring, W. H.*	Schubert, C. L.
Mayer, P. F.*	Ng Hong	Prince, F. D.	Schlott, O. H. J.*
Matschek, F. L.*	Ng Fook	Pratt, J. N.	Schwartz, N.*
Mayo, W. J.*	Ng Yee Wood	Rahlf, N.	Scott, J. F.*
Meacham, H. B.	Ng Gook Chee	Rawlins, T. F.	Scott, Mrs. A. E.*
Meador, H. B.	Ng Too	Rankin, C. M.*	Seccombe, W. C.
Melvin, H. A.*	Ng Shen	Reeb, F.	Sepulveda, J. C.
Metcalfe, J. A.	Ng Sam	Reed, C. M.	Seyfried, O.*
Miller, C. H.	Newman, C. F.	Reed, H.	Shedden, G. S.*
Miller, C. G.†	Newby, Mrs. H. S.*	Reardon, J. S.	Shearer, J. L.*
Mills, A. J.*	Nightingale, J. B.	Reedy, R. B.*	Shore, T. J.*
Mitchell, Victoria*	Noe, Mrs. M. E.*	Reed, G. W.	Simmons, E. W.*
Mitchell, H.	Norman, R. A.*	Reindollar, T. B.*	Simmons, L. S.*
Montague, J. W.*	Norwood, L. H.	Reid, E. H.	Skinner, J. M.
Moloney, E. J.	Noonan, G. E.*	Reed, M.*	Slemmons, S. A.
Moore, R. E.	Norris, W. E.	Rhodes, B. J.*	Smith, J. W.
Moore, S. L.	Noe, E. H.*	Rich, A. L.	Smith, C. J.
Moore, P. L.*	Noriega, E.	Richardson, H. S.	Smith, H. W.
Morgan, J. E.*	North, D. B.*	Richter, W.*	Smith, H. R.
Morrison, H. C.*	Nute, J.	Richter, E.*	Smith, D. M.
Morris, C.*	O'Connor, J. H.	Richart, G. B.	Smith, P. W.†
Morse, W. H.	Off, E. T.	Richards, J. M.	Smith, W. C.
Moss, M. A.*	O'Gorman, T. V.*	Riley, C. C.*	Smith, E. J.*
Moyers, A. D.	Oliver, A. W.	Riley, Mary E.*	Smith, C. J.*
Moser, D.	Ormiston, A. M.	Rising, J. B.*	Smith, H. A. S.*
Moulton, H. M.	Osborne, A. E.	Ritter, A.*	Smith, W. H.*
Moulton, P.	Ong Duck	Roberts, F. B.	Snell, C. P.
Munter, L.	Osgood, W. J.*	Roberts, E. J.*	Somers, W. G.
Munroe, L. F.*	Osswalt, J.	Robertson, W.*	Spradling, R. G.
Muller, W. M.*	Osuna, L.*	Robinson, O.*	Spagnoli, S. N. D.
Murdock, W. H.	Otstot, B.*	Rogers, E. C.	Spiro, H.*
Myers, G. W.*	Ott, H. G.*	Rogers, T. F.*	Stafford, R. L.*
Myers, Florence*	Owen, R. D.	Ronaldson, J.*	Starbuck, Emma C.*
McAuliffe, T. W.*	Paccaud, L. S.	Rosenberg, E. S.	Stark, W. H.
McCollough, G. E.	Pace, T.	Rothman, N.*	Steele, H.†
McCreadie, R. B.	Parke, O. H.*	Rounds, C. C.	Stevens, F. S.*
McCaudless, G. L.*	Partridge, H.	Rudolph, W. F.	Stedman, C. L.
McDonnell, J. J.*	Parks, G. M.*	Rumsey, S. L.	Stephenson, J. F.*
McGettigan, C. D.	Parker, A. S.	Ruffin, J. E.	Stewart, S. M.
McGivern, E. J.*	Partensky, C. F.	Ruiz, B. P.*	Stewart, G. A.*
McKee, J.*	Parrott, W. E.*	Ruhser, F. W.*	Stewart, W. M.
McKinney, J. B.*	Patten, O. H.	Rushmer, H. F.	St. John, S.*
McKee, Barbara*	Patrick, R. W.	Salmon, E. P.*	Stocker, J. B.*
McKim, W.*	Patterson, Florence*	Salinsky, W. H.	Stone, H. N.
McLeod, A. C.*	Paterson, W. H.	Samuels, E. G.	Strechenbach, R.
McLeod, C. W.*	Pearlman, S. M.*	Saxton, W. E.*	Strong, G. H.
McNeil, W. J.	Pearse, S. W.*	Schluter, C. A.	Strout, G. E.*
McPhee, R. G.	Perry, A. N.	Schmidt, A. H.	Sutherland, F. H.
McQueen, J. S.	Perry, B.	Schmidt, E. V.*	Strain, W. I.*
McQuiddy, R. D.*	Peters, T. C.*	Schmitker, J. J.*	Taber, W. Z.*
Nash, C. M.	Phillips, H. A.	Schetter, E. O.*	Tapee, J. H.
Neal, R. L.*	Phelan, Mary*	Schroeder, T. C.†	Tallman, T. Y.*
Newhall, E. R.*	Plymire, W. A.	Schroder, H. C.*	Taylor, F. B.*

* Re-registered to date. † Deceased.

ASSISTANT PHARMACISTS—Continued.

Teass, C. J.	Ullman, F. G.	Wells, C. H.	Wise, M. S.
Terwilliger, C. W.*	Upp, W. A.	Wenger, F. D.*	Wolf, E. A.*
Teschner, E. J.	Urunuela, N. R.	West, J. H.	Wolf, Minnie J.*
Thiele, E. H.	Vance, J. G.*	West, E. F.*	Wong Kum Long
Thompson, P. H.*	Van Sull, A.*	Weukel, C.	Wong Ho
Thompson, J. E.	Varga, A. R.*	Wheeler, W. R.*	Worthington, W. F.*
Thompson, G. E.	Virden, B. S	Whiting, E. C.	Woodliff, F.
Thompson, R. J.	Villar, J.	Whitby, E. R.*	Wood, W. H.
Thomas, C. B.	Vollmer, H.*	Whitcomb, G. O.*	Worcester, F. W.
Thomas, J. W.	von der Lieth, H.	Whitfield, K. S.	Woo Tong
Titus, J. B.	Vollmer, J. A.	Whittier, H. F.	Wong Lim
Titus, I. S.	von Luedinghausen,	Whitney, B. H.	Wong Won
Tjader, C. W.*	O.*	White, J. S.*	Wong Ben
Treuholtz, L. A.	Walls, Benecia	White, W. E.	Wong Fook
Trefry, T. A.*	Wall, B.	Wigginton, J. W.*	Wolfe, C. H.*
Trewin, R.*	Walsh, E. V.	Wiest, L. L.	Wrede Jr., T.*
Trivett, A. T.	Waller, F. L.	Wilson, F. H.	Wuensche, C.*
Trivett, W. M.*	Walker, W. G.*	Williams, J. S.	Yager, W. J.*
Trewartha, W.*	Watson, K. E.*	Wilkins, L.*	Young, H. J.*
Tully, C. J.	Watson, W. D.	Williams, E. J.	Yee Yen Jung
Turner, J. S.*	Weitman, L. H.	Wise, T. F.*	Yee Sing Woo
Turner, W. P.*	Webster, E. E.*	Wines, W. F.*	Yue Choy
Tyrrell, T. D.	Wegener, E. L.*		

* Re-registered to date.

ELEVENTH AND TWELFTH ANNUAL REPORTS

OF THE

BOARD OF DENTAL EXAMINERS

OF THE

STATE OF CALIFORNIA.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1896.

DENTAL EXAMINERS OF THE STATE OF CALIFORNIA.

NINTH BOARD.

THOMAS MORFFEW, D.D.S., <i>President</i>	San Francisco.
JOSEPH D. HODGEN, D.D.S., <i>Secretary</i>	San Francisco.
J. L. ASAY, M.D.	San José.
F. F. TEBBETS	Sacramento.
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JOHN C. McCOY, D.D.S.	Santa Ana.
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S. E. KNOWLES, M.D., D.D.S.	San Francisco.
F. F. TEBBETS	Sacramento.
JOHN C. McCOY, D.D.S.	Santa Ana.
J. L. ASAY, M.D.	San José.

ELEVENTH BOARD.

S. E. KNOWLES, M.D., D.D.S., <i>President</i>	San Francisco.
JOSEPH D. HODGEN, D.D.S., <i>Secretary</i>	San Francisco.
THOMAS MORFFEW, D.D.S.	San Francisco.
W. J. YOUNGER, M.D.	San Francisco.
JOHN C. McCOY, D.D.S.	Santa Ana.
F. F. TEBBETS	Sacramento.
J. L. ASAY, M.D.	San José.

TWELFTH BOARD.

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JOSEPH D. HODGEN, D.D.S., <i>Secretary</i>	San Francisco.
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JOHN C. McCOY, D.D.S.	Santa Ana.
W. A. MOORE	Benicia.
F. W. BLISS, D.D.S.	Santa Cruz.



REPORT.

To his Excellency JAMES H. BUDD, Governor of the State of California:

SIR: The Board of Dental Examiners of the State of California submits the following as the eleventh and twelfth annual reports of its proceedings, together with an account of all moneys received and disbursed, in compliance with the requirements of that certain Act of the Legislature entitled "An Act to insure the better education of practitioners of dental surgery, and to regulate the practice of dentistry in the State of California," approved March 12, 1885, a copy of which is hereto annexed, together with a copy of an amendment of Section 6 of said Act, approved March 3, 1893.

Since issuing the last report, the Board has held two annual and eleven special meetings.

At the annual meeting held August 6, 7, 8, and 9, 1895, thirteen persons made application, and eleven applicants appeared for examination, seven of whom successfully passed the prescribed examination. At this meeting the election of officers for 1895 and 1896 was held. Dr. S. E. Knowles, of San Francisco, was elected President, and Dr. Joseph D. Hodgen, of San Francisco, was elected Secretary. During this year two persons registered under Section 4; sixty-six diplomas were indorsed, and one refused indorsement, being unsatisfactory to the Board, and seven candidates received certificates upon successful examination.

During the year, Drs. S. E. Knowles, J. L. Asay, and W. J. Younger presented their several resignations to the Governor, and the same were accepted. On the 17th day of February, 1896, the Governor appointed as a member of the Board Dr. F. W. Bliss, of Santa Cruz, vice Dr. J. L. Asay, resigned; and on the 21st day of February, 1896, the Governor appointed as a member of the Board Dr. W. A. Moore, of Benicia, vice Dr. S. E. Knowles, resigned.

At the annual meeting held August 4, 5, 6, and 7, 1896, twelve applicants appeared for examination, nine of whom successfully passed the prescribed examination. At this meeting the election of officers for 1896 and 1897 was deferred until after the Governor completed his appointments, Dr. F. F. Tebbets, President, and Dr. Joseph D. Hodgen, Secretary, continuing their respective capacities until their successors are elected.

During the past year two persons registered under Section 4; seventy diplomas were indorsed, and one diploma was refused indorsement, being

unsatisfactory to the Board, and nine candidates received certificates upon successful examination.

A list of all whose names have been registered, and of those whose diplomas have been indorsed, and of those who have received certificates on the examination of the Board since its last report, is hereunto annexed.

The following is an account of all moneys received and disbursed by the Board from September 1, 1894, to August 29, 1895:

Receipts.

For registration of 2 persons, at \$1 each	\$2 00
For registration of 66 diplomas, at \$10 each	660 00
For registration of 1 diploma, at \$10 (not yet registered)	10 00
For examination 13 candidates, at \$10 each	130 00
For duplicate certificates, 5 at \$1 each	5 00
Borrowed from the San Francisco Dental Association	200 00
Total receipts.....	\$1,007 00
Balance on hand from last report	211 37
Total	\$1,218 37

Disbursements.

Printing	\$14 25
Stationery	45 15
Traveling expenses of members	190 00
Traveling expenses of Secretary to trials	272 00
Fees returned (1)	10 00
Necessary clerical expense	13 20
Necessary legal expense	231 35
Expense of annual meeting	373 45
Incidentals	49 75
Total disbursements.....	\$1,199 15
Cash on hand	19 22
Total	\$1,218 37

The following is an account of all moneys received and disbursed by this Board from August 29, 1895, to September 15, 1896:

Receipts.

For registration of 2 persons, at \$1 each	\$2 00
For registration of 70 diplomas, at \$10 each	700 00
For registration of 4 diplomas, at \$10 each (not yet registered)	40 00
For examination of 12 candidates, at \$10 each	120 00
For examination of 1 candidate, for 1897, at \$10	10 00
For duplicate certificate, 1 at \$1	1 00
Total receipts	\$873 00
Balance on hand from last year	19 22
Total	\$892 22

<i>Disbursements.</i>	
Printing.....	\$39 80
Stationery.....	20 95
Traveling expenses of members.....	172 50
Fees returned (2).....	20 00
Necessary clerical expenses.....	44 75
Necessary legal expenses.....	250 30
Hall rent.....	140 00
Incidentals.....	52 50
Total disbursements.....	<u>\$740 80</u>
Balance on hand.....	151 42
Total.....	<u>\$892 22</u>

The next regular meeting of the California State Board of Dental Examiners for examination of candidates will be held in San Francisco, commencing the first Tuesday in August, at 9 o'clock, in the year 1897.

It seems to be popularly supposed that the Board of Dental Examiners shall prosecute all persons violating the law. This is not the case; but it is the duty of every dentist to see that the law is enforced, and it is the duty of every prosecuting attorney of each county to prosecute every person violating the law, on receipt of information of such violation, and the necessary evidence to establish the fact.

Positive evidence of the violation of the law must be first obtained. This, with a formal information and a list of witnesses, should be handed to the prosecuting attorney, who will then be in duty bound to prosecute the case.

The attention of licensees is called to the fact that they are required to have their licenses recorded with the County Clerk of the county in which such persons may reside; it requires no action of the Board to work a forfeiture of the license under Section 8 of the law. The fact of failure to have it recorded within six months of date of issue, subjects licensee to the penalty for neglect.

All persons who are now practicing dentistry in this State, and who have not received a certificate from this Board in pursuance of the Act mentioned, are violating the law, and are subject to arrest and fine of \$50 to \$200, or imprisonment for six months in the county jail, for each and every offense.

It will be necessary for all persons who may hereafter desire to engage in the practice of dentistry in this State to secure a certificate from this Board, upon a diploma from a reputable dental college, or after examination in dental surgery, as required by the Act of March 12, 1885. In examining applicants for certificates to practice dentistry, the Board will examine into the branches of anatomy, physiology, pathology, histology, hygiene, materia medica, therapeutics, chemistry, metallurgy, operative dentistry, dental jurisprudence, and prosthetic dentistry. Ten questions will be submitted in each branch, and candidates will be marked in accordance with the answers to the same. Examinations will be

both written and clinical. Seventy-five per cent will be required on the written examinations, and, in addition, a satisfactory clinical examination will be required of all those who are successful on the written examinations.

Each applicant must come prepared to do any work designated for him. The Board will furnish chairs, engines, vulcanizers, and all necessary materials.

In accordance with the resolution adopted by the Board, August 13, 1891:

Resolved, That the California State Board of Dental Examiners publish a list of the unlicensed practitioners of said State, in their annual report to the Governor of the State, each year,

The Board has caused to be published in this report a list of all unlicensed practitioners of the State of California it has become officially cognizant of.

For the information of the public we desire to explain that *no fee can be legally collected by any of the above named unlicensed practitioners by virtue of that fact.*

Recognizing that many inaccuracies and mistakes are liable to occur in this report, on account of the refusal of many to reply to the request of the Secretary, and the natural meagerness of all such needed information, the Board will be especially grateful to any one who will mail to the Secretary any information correcting errors in the same, provided such information be correct.

During the past two years the Board has been the defendant in two cases for mandamus. The first, instituted by one J. J. Leek, of San Francisco, to compel the Board to issue to him a certificate to practice in the State of California; proceedings in Judge Seawell's court, City and County of San Francisco. The plaintiff was nonsuited. The same J. J. Leek was subsequently arrested by one of his employes for practicing dentistry in California without a license. The defendant, Leek, argued that the law was unconstitutional, and petitioned for a writ of habeas corpus, which resulted in the following opinion being handed down by the Supreme Court of this State:

IN THE MATTER OF THE APPLICATION OF JOHN J. LEEK, FOR A WRIT OF HABEAS CORPUS.

The Act of the Legislature under which the petitioner was arrested is not, in our opinion, in conflict with any provision of the Constitution of this State, nor of the Constitution of the United States; and, for these reasons, the application for the writ is denied.

HARRISON, J.
VAN FLEET, J.
McFARLAND, J.
GAROUTTE, J.

I dissent:

BEATTY, C. J.

The second case was instituted by one J. D. Van Vleck, of Los Angeles, California, to compel the Board of Dental Examiners to issue to him a certificate to practice in this State; proceedings in the Superior Court of Orange County, California, T. W. Towner, Judge. Judgment was entered directing the issuance of the writ prayed for. An appeal was then taken to the Supreme Court from this judgment, and from an order denying defendant's motion for a new trial, where it is now pending.

All of which is respectfully submitted by the Board of Dental Examiners of the State of California.

DR. F. F. TEBBETS,
President.

J. D. HODGEN, D.D.S.,
Secretary.

September 15, 1896.

AN ACT

To insure the better education of practitioners of dental surgery, and to regulate the practice of dentistry in the State of California.

[Approved March 12, 1885.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. It shall be unlawful for any person, who is not at the time of the passage of this Act engaged in the practice of dentistry in this State, to commence such practice unless he or she shall have obtained a certificate, as hereinafter provided.

SEC. 2. A Board of Examiners, to consist of seven practicing dentists, is hereby created, whose duty it shall be to carry out the purposes and enforce the provisions of this Act. The members of said Board shall be appointed by the Governor from the dental profession from the State at large. The term for which the members of said Board shall hold their office shall be four years, except that two of the members of the Board first to be appointed under this Act shall hold their office for the term of one year, two for the term of two years, two for the term of three years, and one for the term of four years, respectively, and until their successors shall be duly appointed and qualified. In case of a vacancy occurring in said Board, such vacancy shall be filled by the Governor, in conformity with this section.

SEC. 3. Said Board shall choose one of its members President and one Secretary thereof, and it shall meet at least once in each year, and as much oftener and at such times and places as it may deem necessary. A majority of said Board shall, at all times, constitute a quorum, and the proceedings thereof shall, at all reasonable times, be open to public inspection.

SEC. 4. Within six months from the time this Act takes effect, it shall be the duty of every person who is now engaged in the practice of dentistry in this State to cause his or her name and residence, or place of business, to be registered with said Board of Examiners, who shall keep a book for that purpose. The statement of every such person shall be verified under oath before a Notary Public or Justice of the Peace, in such a manner as may be prescribed by the Board of Examiners. Every person who shall so register with said Board as a practitioner of dentistry, shall receive a certificate to that effect, and may continue to practice as such without incurring any of the liabilities or penalties provided in this Act, and shall pay to the Board of Examiners for each registration the fee of one dollar. It shall be the duty of the Board of Examiners to forward to the County Clerk of each county in the State a certified list of the names of all persons residing in his county who have registered in accordance with the provisions of this Act, and it shall be the duty of all County Clerks to register such names in a book to be kept for that purpose.

SEC. 5. Any and all persons who shall so desire, may appear before the Board at any of its regular meetings and be examined in reference to their knowledge and skill in dental surgery; and if the examination of any such person or persons shall prove satisfactory to said Board, the Board of Examiners shall issue to such persons as they shall find to possess the requisite qualifications a certificate to that effect, in accordance with the provision of this Act. Said Board shall also indorse as satisfactory, diplomas from any reputable dental college, when satisfied as to the character of such institution, upon the holder furnishing evidence satisfactory to the Board, of his or her right to the same, and shall issue certificates to that effect within ten days thereafter. All certificates issued by said Board shall be signed by its officers, and such certificates shall be prima facie evidence of the right of the holder to practice dentistry in the State of California.

SEC. 6. Any person who shall violate any of the provisions of this Act shall be deemed guilty of a misdemeanor, and upon conviction may be fined not less than fifty dollars nor more than two hundred dollars, or confined six months in the county jail for each and every offense. All fines recovered under this Act shall be paid into the Common School Fund of the county in which such conviction takes place.

SEC. 7. In order to provide the means for carrying out and maintaining the provisions of this Act, the said Board of Examiners shall charge each person applying to or appearing before them for examination for a certificate of qualifications, a fee of ten dollars, which fee shall be in no case returned; and out of the funds coming into the possession of the Board from the fees so charged, and penalties received under the provisions of this Act, all legitimate and necessary expenses incurred in attending the meetings of said Board shall be paid; and no part of the expenses of the Board shall ever be paid out of the State Treasury. All moneys received in excess of expenses above provided for, shall be held by the Secretary of said Board, as a special fund for meeting the expenses of said Board, and carrying out the provisions of this Act, he giving such bond as the Board shall from time to time direct; and said Board shall make an annual report of its proceedings to the Governor, by December first of each year, together with an account of all moneys received and disbursed by them pursuant to this Act.

SEC. 8. Any person who shall receive a certificate from said Board to practice dentistry, shall cause his or her certificate to be registered with the County Clerk of the county in which such person may reside, and the County Clerk shall charge for registering such certificate a fee of one dollar. Any failure, neglect, or refusal on the part of any person holding such certificate to register the same with the County Clerk, as above directed, for a period of six months, shall work a forfeiture of the certificate, and no certificate, when once forfeited, shall be restored, except upon the payment to said Board of twenty-five dollars, as a penalty of such neglect, failure, or refusal.

SEC. 9. Any person who shall knowingly or falsely claim, or pretend to have or hold a certificate of license, diploma, or degree, granted by any society organized under and pursuant to the provisions of this Act, or who shall falsely, and with intent to deceive the public, claim or pretend to be a graduate from any incorporated dental college, shall be deemed guilty of a misdemeanor, and shall be liable to the same penalty as provided in section six.

SEC. 10. Nothing in this Act shall be so construed as to prohibit any practicing physician from extracting teeth.

SEC. 11. This Act shall take effect immediately.

AN ACT

To amend an Act entitled "An Act to insure the better education of practitioners of dental surgery, and to regulate the practice of dentistry in the State of California," approved March 12, 1885.

[Approved March 3, 1893.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section six of said Act is hereby amended so as to read as follows:

Section 6. Any person who shall violate any of the provisions of this Act shall be deemed guilty of a misdemeanor, and upon conviction shall be fined not less than fifty dollars nor more than two hundred dollars, or confined in the county jail six months for each and every offense. All fines recovered and collected under this Act shall be distributed, one half to the informer, and the other half be paid into the Common School Fund of the county in which the conviction takes place.

SEC. 2. This Act shall take effect immediately.

CODE OF DENTAL ETHICS.

RECOMMENDED BY THE AMERICAN DENTAL ASSOCIATION.

THE DUTIES OF THE PROFESSION TO PATIENTS.

SECTION 1. The dentist should be ever ready to respond to the wants of his patients, and should fully recognize the obligations involved in the discharge of his duties toward them. As he is, in most cases, unable to correctly estimate the character of his operations, his own sense of right must guarantee faithfulness in their performance. His manner should be firm, yet kind and sympathizing, so as to gain the respect and confidence of his patients; and even the simplest case committed to his care should receive the attention which is due to any operation performed on living, sensitive tissue.

SEC. 2. It is not to be expected that the patient will possess a very extended or a very accurate knowledge of professional matters. The dentist should make due allowance for this, patiently explaining many things which may seem quite clear to himself, thus endeavoring to educate the public mind so that it will properly appreciate the beneficent efforts of our profession. He should encourage no false hopes by promising success where, in the nature of the case, there is uncertainty.

SEC. 3. The dentist should be temperate in all things, keeping both mind and body in the best possible health, that his patients may have the benefit of that clearness of judgment and skill which is their right.

MAINTAINING PROFESSIONAL CHARACTER.

SEC. 4. A member of the dental profession is bound to maintain its honor, and to labor earnestly to extend its sphere of usefulness. He should avoid everything in language and conduct calculated to discredit or dishonor his profession, and should ever manifest a due respect for his brethren. The young should show special respect to their seniors; the aged, special encouragement to their juniors.

SEC. 5. The person and office arrangements of the dentist should indicate that he is a gentleman; and he should sustain a high-toned moral character.

SEC. 6. It is unprofessional to resort to public advertisements, cards, handbills, posters, or signs, calling attention to peculiar styles of work, lowness of prices, special modes of operating, or to claim superiority

over neighboring practitioners, to publish reports of cases or certificates in public prints, to go from house to house to solicit or perform operations, to circulate or recommend nostrums, or to perform any other similar acts.

SEC. 7. When consulted by the patient of another practitioner, the dentist should guard against inquiries or hints disparaging to the family dentist, or calculated to weaken the patient's confidence in him, and if the interests of the patient will not be endangered thereby, the case should be temporarily treated, and referred back to the family dentist.

SEC. 8. When general rules shall have been adopted by members of the profession practicing in the same localities, in relation to fees, it is unprofessional and dishonorable to depart from these, except when variation of circumstances requires it. And it is ever to be regarded as unprofessional to warrant operations or work as an inducement to patronage.

THE RELATIVE DUTIES OF DENTISTS AND PHYSICIANS.

SEC. 9. Dental surgery is a specialty in medical science. Physicians and dentists should both bear this in mind. The dentist is professionally limited to diseases of the dental organs and the mouth. With these he should be more familiar than the general practitioner is expected to be; and while he recognizes the superiority of the physician in regard to diseases of the general system, the latter is under equal obligations to respect his higher attainments in his specialty. Where this principle governs there can be no conflict, or even diversity of professional interests.

THE MUTUAL DUTIES OF THE PROFESSION AND THE PUBLIC.

SEC. 10. Dentists are frequently witnesses, and at the same time the best judges, of the impositions perpetrated by quacks, and it is their duty to enlighten and warn the public in regard to them. For this, and the many other benefits conferred by competent and honorable dentists, the profession is entitled to the confidence and respect of the public, who should always discriminate in favor of the true man of science and integrity, and against the empiric and impostor. The public has no right to tax the time and talents of the profession in examinations, prescriptions, or in any way, without proper remuneration.

REGISTER OF LICENSED DENTAL PRACTITIONERS.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Abbey, Wm. H.	Oakland	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	495		
Abraham, Henry	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	499		
Abrams, Geo.	Willows	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	512		
Adams, S. H.	Los Angeles	Act of March 12, 1885		July 18, 1885	128	Los Angeles Co.	Feb. 10, 1886
Adams, Q. L.*	Red Bluff	Act of March 12, 1885		July 1, 1885	39	San Francisco	Nov. 29, 1886
Albright, F. H.	Santa Cruz	College of Dentistry, Univ. Cal.	Nov. 13, 1890	Apr. 22, 1891	145	Tehama County	Dec. 6, 1892
Alger, E. J.	East Oakland	College of Dentistry, Univ. Cal.	Mar. 9, 1893	Nov. 17, 1893	304	Alameda County	Mar. 17, 1893
Allen, Ernest	Los Angeles	Chicago College of Dental Surgery	Mar. 2, 1892	Apr. 20, 1894	320	Los Angeles	May 2, 1894
Anderson, D. P.	San Rosa	Examined by Board	Oct. 16, 1888	Oct. 18, 1888	80	Sonoma County	Oct. 29, 1888
Anderson, R. W.	Honolulu	Philadelphia Dental College	Sept. 28, 1883	Aug. 8, 1895	423		
Arbeely, H. J.	Monrovia	Dental Dept. Southern Med. Col.	Mar. 5, 1890	Dec. 16, 1892	219	Los Angeles Co.	May 17, 1893
Archer, Ira B.	North San Juan	Baltimore College of Dental Surg.	Mar. 20, 1890	June 5, 1890	118	Not known	
Argall, Frank L.	San José	Act of March 12, 1885		July 1, 1885	35	Not known	
Armstrong, John J.	Vallejo	Act of March 12, 1885		Oct. 15, 1889	520	San Francisco	Feb. 17, 1890
Arroyo, Jorge	Guatemala	College of Dentistry, Univ. Cal.	Mar. 9, 1893	Mar. 11, 1893	231	San Francisco	May 17, 1893
Asay, J. L.	San José	Act of March 12, 1885		July 15, 1885	101	Tulare County	Aug. 15, 1885
Asay, Casper E.†	Visalia	Act of March 12, 1885		July 15, 1885	103	Tulare County	Aug. 15, 1885
Asworth, Frank P.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 9, 1893	June 14, 1893	262	Not known	
Atwood, David C.	Sonoma	Philadelphia College of Dentistry	Feb. 24, 1888	Oct. 13, 1890	143	Not known	
Atwood, Wm. A.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895	Mar. 7, 1896	460		
Austin, H.*	San José	Act of March 12, 1885		Aug. 24, 1885	274	San Francisco	Nov. 29, 1886
Avery, W. N.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 9, 1893	June 14, 1893	264	Santa Clara	1893
Axton, F. R.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895	Aug. 8, 1895	431		
Backman, G. S.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 13, 1890	Aug. 3, 1892	202	San Francisco Co.	Aug. 22, 1892
Bacon, A. A.	Los Angeles	American College Dent. Surg., Ill.	Oct. 9, 1892	Sept. 9, 1895	445	Kern County	May 11, 1899
Badgley, A.	Ventura	Examined by Board	Oct. 16, 1888	Nov. 12, 1888	85	San Francisco	Sept. 13, 1886
Ba Due, W. N.	San Francisco	Act of March 12, 1885		July 7, 1885	57	Fresno County	Oct. 24, 1894
Baird, E. F.	Sanger	College of Dentistry, Univ. Cal.	June 14, 1894	Oct. 7, 1894	373	San Francisco	May 9, 1893
Baker, A. M.	San José	Act of March 12, 1885		July 7, 1885	56	Santa Clara Co.	Jan. 30, 1886
Baldwin, C. V.	Los Angeles	Act of March 12, 1885		Sept. 8, 1885	374	Los Angeles	
Barnes, F. J.	San Diego	Act of March 12, 1885		Aug. 20, 1885	264	Not known	
Barradas, F. C., Jr.	San Leandro	Act of March 12, 1885		Sept. 4, 1885	346	Not known	
Barrett, C. J.	Red Bluff	Act of March 12, 1885		July 7, 1885	66	Tehama County	
Barrett, T. F.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895	Jan. 7, 1886	447	Alameda County	Aug. 11, 1885
Bates, C. P.	Petaluma	Act of March 12, 1885		July 18, 1885	122		

* Deceased. † Retired.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Bates, B. F.	Folsom	Act of March 12, 1885.		June 29, 1885.	13	Not known	
Bauer, Chas. F.	San Francisco	College of Dentistry, Univ. Cal.	Feb. 9, 1892.	Dec. 16, 1892.	223	San Francisco Co.	Jan. 5, 1893
Bauske, R. E.	Oakland	Act of March 12, 1885.		Aug. 3, 1892.	531	Alameda County	Aug. 6, 1892
Baynes, H. F.*		Baltimore College of Dental Surg.	Mar. 6, 1886.	Nov. 5, 1886.	28	Not known	
Beacon, Chas. W.	Crescent City	Philadelphia Dental College	Feb. 27, 1879	Feb. 5, 1895.	319		
Beals, C. H.	San Andreas	Act of March 12, 1885.		June 2, 1886.	454	Calaveras County	Aug. 25, 1886
Bedford, L. N.	San Bernardino	Pennsylvania Col. of Dent. Surg.	Feb. 26, 1885.	July 19, 1886.	26	Not known	
Beers, Barrett	San Francisco	Act of March 12, 1885.		July 26, 1885.	158	San Francisco Co.	Nov. 15, 1885
Belhls, E. K.	Tulare	Act of March 12, 1885.		Aug. 26, 1885.	295	Tulare County	Sept. 6, 1892
Bell, Chas. H.	San Francisco	College of Dentistry, Univ. Cal.	Feb. 9, 1892.	Aug. 3, 1892.	155	San Francisco Co.	Oct. 1, 1892
Bennett, A. G., Jr.	San José	College of Dentistry, Univ. Cal.	Mar. 9, 1893.	Mar. 11, 1893.	295	Santa Clara Co.	Mar. 25, 1893
Bernard, G. W.*		New York College of Dentistry	Mar. 6, 1867.	Nov. 24, 1885.	8	Not known	
Bernard, H. A.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1885	Nov. 15, 1895.	406	San Francisco	Aug. 21, 1895
Berry, Chas. A.	Not known	Act of March 12, 1885.		Aug. 20, 1885.	271	San Francisco	Nov. 29, 1886
Bethiel, F. J.	Bakersfield	University of Iowa, Dent. Dept.	Mar. 11, 1890.	Mar. 12, 1892.	182	Yolo County	Mar. 12, 1892
Bettis, H. S.	Boise City, Idaho.	Act of March 12, 1885.		Sept. 11, 1885.	441	San Francisco	Nov. 29, 1886
Beverton, D. W.	Eureka	Act of March 12, 1885.		July 2, 1885.	50	San Francisco	Mar. 29, 1886
Biddle, E. W.†	Healdsburg	Act of March 12, 1885.		July 2, 1885.	211	Humboldt Co.	Oct. 3, 1885
Bills, A. V.†	Oakland	College of Dentistry, Univ. Mich.	Mar. 23, 1881.	Aug. 7, 1885.	18	Humboldt Co.	Dec. 10, 1886
Bird, W. R.	Los Angeles	Act of March 12, 1885.		Feb. 8, 1886.	148	Not known	
Birge, J. J.*		Act of March 12, 1885.		July 23, 1885.	194	Not known	
Bishop, M. F.	Alameda	Act of March 12, 1885.		Aug. 3, 1885.	268	San Francisco	Aug. 3, 1885
Blackwell, B. G.	Lodi	Vanderbilt Dental College	Feb. 21, 1884.	Aug. 20, 1885.	164	Not known	
Blake, A. E.	San Francisco	Act of March 12, 1885.		Aug. 13, 1891.	307	San Joaquin Co.	Nov. 29, 1886
Blake, C. E. Sr.	San Francisco	Act of March 12, 1885.		Aug. 29, 1885.	357	San Francisco	Nov. 29, 1886
Blain, J. C.	Not known	Examined by Board	Oct. 18, 1887.	Sept. 6, 1885.	45	Tulare County	Oct. 26, 1887
Blair, C. L.	Los Angeles	Act of March 12, 1885.		Oct. 25, 1887.	535		
Blaisdell, J. H.	Not known	Act of March 12, 1885.		Nov. 17, 1893.	229	San Francisco	Nov. 29, 1886
Blankman, Wm.	San Francisco	Act of March 12, 1885.		Aug. 12, 1885.	199	San Francisco	Nov. 29, 1886
Bliss, F. A.	San Francisco	Act of March 12, 1885.		Aug. 7, 1885.	401	Humboldt Co.	Dec. 5, 1888
Bliss, C. L.	Santa Cruz	Act of March 12, 1885.		Sept. 9, 1885.	45	Santa Cruz Co.	Feb. 5, 1886
Bliss, F. W.	Santa Cruz	Act of March 12, 1885.		July 2, 1885.	19	San Francisco	Nov. 29, 1886
Bloch, Constantin	Not known	Act of March 12, 1885.		June 29, 1885.	433	San Francisco	Nov. 29, 1886
Blodgett, J. M.	Lodi	College of Dentistry, Univ. Cal.	Feb. 9, 1892.	Sept. 11, 1885.	196	Not known	
Blodin, Arthur*		Act of March 12, 1885.		Aug. 3, 1892.	333	San Francisco	Nov. 29, 1886
Blood, J. N.*		Act of March 12, 1885.		Sept. 4, 1885.	418	San Francisco	Nov. 29, 1886
Boeske, B. C.	San Francisco	College of Dentistry, Univ. Cal.	Jan. 18, 1896.	Sept. 10, 1885.	510	Not known	
Bogart, S. C.	San Bernardino	Act of March 12, 1885.		Aug. 5, 1886.	210	San Francisco	Nov. 29, 1886
Bolton, Thomas	San Francisco	Act of March 12, 1885.		Aug. 7, 1885.	48	Not known	
Bometter, F.	Marysville	Act of March 12, 1885.		July 2, 1885.	532	Yuba County	Mar. 16, 1893
				Mar. 11, 1893.			

Bonham, C. A.	Stockton	Act of March 12, 1885.	June 18, 1889.	517	Not known	Dec. 15, 1885
Bonham, J. F.	Watsonville	Act of March 12, 1885	Sept. 11, 1885.	436	Kern County	
Bonnel, F. C.	Hollister	College of Dentistry, Univ. Cal.	Aug. 5, 1886.	502	Tulare County	Oct. 17, 1888
Boone, N. J.	Red Bluff	Philadelphia Dental College	June 24, 1888.	83		
Borger, J. N.	San Francisco	College of Dentistry, Univ. Cal.	June 15, 1885.	405	San Francisco Co.	Mar. 4, 1886
Botsford, George	San Francisco	College of Dentistry, Univ. Cal.	Nov. 10, 1885	6	San Francisco Co.	
Bourne, R. R.	Los Angeles	Pennsylvania Col. of Dent. Surg.	May 7, 1888.	72	Nevada	Aug. 17, 1895
Bowman, I. L.	Nevada City	Chicago College Dent. Surg.	Aug. 8, 1895	420	San Francisco	Nov. 29, 1886
Boxton, Charles	San Francisco	Act of March 12, 1885	Sept. 11, 1885.	525	Sonoma County	June 15, 1891
Boyd, E. J.	Yreka	Act of March 12, 1885	Sept. 22, 1891.	265	Not known	
Boyd, S. A.	San Francisco	Univ. of Maryland Col. of Dent.	June 14, 1883.	29	Not known	
Boyd, C. W.	Marysville	Act of March 12, 1885	June 30, 1885.	157	Not known	
Boyd, G. H.	Marysville	Act of March 12, 1885	July 28, 1885	322	Not known	
Boyes, H. D.	Oakland	Royal College of Dental Surgeons	Apr. 1, 1890	86	San Francisco Co.	Nov. 13, 1888
Boys, H. S.	Ukiah	Examined by Board	Oct. 16, 1888	128	Not known	
Bray, George F. I.	San Francisco	Examined by Board	July 12, 1890.	458	Not known	
Brewer, John L.	Not known	Act of March 12, 1885	Sept. 12, 1885	456	Not known	
Brewer, F. A.	Fresno	Act of March 12, 1885	Sept. 12, 1885	142	San Francisco	Nov. 29, 1886
Brewer, B. B.	San Francisco	Act of March 12, 1885	July 23, 1885	536		
Briggs, W. H.	Brentwood	Act of March 12, 1885	Nov. 17, 1893.	373	Not known	
Brigham, K. A.	Gilroy	Act of March 12, 1885	Sept. 8, 1885.	136	Los Angeles	Jan. 15, 1891
Broadbeck, H. W.	Los Angeles	Ohio College of Dental Surgery	July 12, 1890.	304	San Francisco	Sept. 1, 1885
Brooks, W. E.	Oakland	Act of March 12, 1885.	Aug. 27, 1885	52	Contra Costa Co.	Dec. 20, 1887
Brooks, F. A.	San Francisco	Examined by Board	Nov. 10, 1887.	392	Not known	June 26, 1895
Brooks, F. S.	Martinez	Philadelphia Dental College	June 13, 1895.	87	Los Angeles Co.	Aug. 17, 1893
Brown, William G.	Not known	Act of March 12, 1885.	Sept. 12, 1885	169	San Francisco	Nov. 27, 1886
Brown, E. P.	San Luis Obispo	Act of March 12, 1885.	July 9, 1885	277		
Brown, C. D.	Los Angeles	Examined by Board	Aug. 4, 1893.	299	Not known	
Brown, A. V.	San Francisco	Baltimore Col. of Dental Surgery	Nov. 2, 1891.	24	Not known	
Brun, L. E.	San Francisco	College of Dentistry, Univ. Cal.	Aug. 24, 1885.	294	Not known	
Bryan, A. C.	Pomona	Examined by Board	Aug. 8, 1895.	334	Not known	
Bryant, W. A.	San Francisco	Philadelphia Dental College	Aug. 4, 1893.	398	Not known	
Buell, Harry C.	Los Angeles	Examined by Board	July 19, 1886.	267	Not known	
Bunnell, E. F.*	San Francisco	Act of March 12, 1885	Aug. 4, 1893.	226	San Francisco	Nov. 29, 1886
Burch, Maria A.*	San Francisco	Act of March 12, 1885.	Aug. 17, 1885	51	Alameda County	July 21, 1886
Burfield, W. M. H.	San Francisco	University of Maryland	June 9, 1894.	69	San Joaquin Co.	Oct. —, 1885
Burgess, R. F.	Los Angeles	Act of March 12, 1885.	Sept. 9, 1885	393	San Francisco	Dec. 11, 1895
Burleson, F. D.	Pomona	College of Dentistry, Univ. Cal.	Aug. 1, 1893.	280	Not known	
Burns, O. B.	San Francisco	Act of March 12, 1885	Aug. 12, 1885			
Burnette, E. T.*	Oakland	Act of March 12, 1885	July 7, 1885.			
Burton, Frank	Stockton	Act of March 12, 1885.	July 7, 1885.			
Bush, F. J. H.	San Francisco	Kansas City Dental College.	June 15, 1895.			
Bush, Louis	San Francisco	Act of March 12, 1885.	Aug. 24, 1885.			

* Deceased. † Retired.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Bush, C. G.	San Francisco	College of Dentistry, Univ. Mich.	Mar. 30, 1886.	Nov. 26, 1886.	33	Not known	Jan. 25, 1886
Butterfield, C. L.	Watsonville	Act of March 12, 1885.	June 18, 1896.	Aug. 7, 1885.	216	Santa Cruz Co.	Jan. 25, 1886
Cafferata, A.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896.	Aug. 5, 1896.	491	San Francisco	Nov. 29, 1886
Callill, S. D.	San Francisco	Act of March 12, 1885.	Apr. 21, 1880.	Aug. 24, 1885.	279	San Francisco	Nov. 29, 1886
Calder, John.	Butte, Mont.	Boston Dental College	Feb. 25, 1892.	Mar. 12, 1892.	181	Not known	Apr. 22, 1895
Calder, H. F.	Los Angeles	Philadelphia Dental College	Feb. 25, 1892.	Apr. 12, 1895.	387	Los Angeles	Apr. 22, 1895
Caldwell, C. L.	Petaluma	Act of March 12, 1885.	June 2, 1885.	June 2, 1886.	480	Butte County	Feb. 19, 1891
Caldwell, F. M.*	Not known	Act of March 12, 1885.	Mar. 4, 1881.	July 7, 1885.	63	Not known	---
Cameron, A. D.	Hanford	Royal College of Dental Surgeons.	Mar. 4, 1881.	Apr. 20, 1894.	320	Not known	---
Camiecia, L. S.	Lookout, Modoc Co.	Act of March 12, 1885.	Oct. 18, 1887.	July 15, 1885.	116	Yolo County	Oct. 15, 1889
Campbell, R. E.	Woodland	Examined by Board	Oct. 18, 1887.	Oct. 25, 1887.	43	San Francisco	May 19, 1893
Cane, Alfred	San Francisco	Act of March 12, 1885.	---	Aug. 17, 1885.	259	San Francisco	---
Caranza V. A.	Costa Rica	Act of March 12, 1885.	---	June 2, 1886.	478	Not known	---
Card, I. D.*	San Francisco	Act of March 12, 1885.	---	Apr. 28, 1886.	467	Mendocino Co.	---
Card, W. H.	San Francisco	Act of March 12, 1885.	---	Sept. 4, 1885.	350	San Francisco	Nov. 29, 1886
Carlton, H. P.	San Francisco	College of Dentistry, Univ. Cal.	Dec. 3, 1886.	June 16, 1893.	114	San Francisco	July 26, 1893
Carpenter, B. L.	Porterville	College of Dentistry, Univ. Cal.	June 13, 1895.	June 15, 1895.	407	Tulare County	Oct. 3, 1895
Carpenter, O.	Oakland	College of Dentistry, Univ. Cal.	---	July 15, 1885.	108	Alameda County	Aug. 24, 1885
Carr, Geo. B.	St. Helena	Act of March 12, 1885.	Mar. 6, 1886.	July 15, 1885.	100	Nevada County	July 24, 1885
Carroll, H. H.	Los Angeles	Baltimore College of Dental Surg.	Mar. 6, 1886.	Feb. 1, 1888.	63	Not known	---
Case, C. E.	Not known	Act of March 12, 1885.	---	July 15, 1885.	109	San Francisco	Nov. 29, 1886
Case, I. M.*	Ukiah	Philadelphia Dental College	Feb. 27, 1879.	July 19, 1886.	25	Los Angeles Co.	Jan. 6, 1887
Case, Edwin G.	Quincy	Examined by Board	Dec. 1, 1885.	Dec. 5, 1885.	11	Mendocino Co.	May 5, 1891
Case, Geo. A.*	Out of State	Act of March 12, 1885.	---	Aug. 15, 1888.	515	San Francisco	Feb. 13, 1889
Cassilly, J. P.	San Diego	Act of March 12, 1885.	Nov. 10, 1885.	Sept. 11, 1885.	442	San Francisco	Nov. 29, 1886
Cate, D. B.	Modesto	College of Dentistry, Univ. Cal.	---	Nov. 24, 1885.	4	Not known	Oct. 26, 1885
Cave, D.	San Francisco	Act of March 12, 1885.	June 14, 1894.	July 15, 1885.	102	San Diego County	---
Cavell, W. H.	Nevada City	College of Dentistry, Univ. Cal.	Feb. 24, 1871.	June 22, 1894.	345	Not known	---
Chaffaul, S. P.	Nevada City	Philadelphia Dental College	Feb. 27, 1891.	Feb. 8, 1886.	185	Nevada County	Mar. 31, 1892
Chapman, C. W.	Nevada City	Pennsylvania Dental College	Mar. 12, 1885.	Mar. 12, 1885.	59	Nevada County	May 5, 1885
Chapman, Mrs. N. E.	San Francisco	Act of March 12, 1885.	Mar. 12, 1885.	July 7, 1885.	181	Sierra County	May 24, 1893
Chapman, S. A.	San Francisco	Act of March 12, 1885.	Mar. 12, 1885.	July 31, 1885.	181	Nevada County	Aug. 19, 1885
Chapman, A.	Virginia City	Act of March 12, 1885.	Dec. 4, 1888.	Aug. 7, 1885.	224	---	---
Chapman, I. H.	San Francisco	College of Dentistry, Univ. Cal.	Dec. 4, 1888.	June 15, 1895.	396	Alameda County	Sept. 4, 1896
Chappel, H. G.	Oakland	College of Dentistry, Univ. Cal.	June 18, 1896.	Aug. 5, 1896.	494	---	---
Chappell, McCoy	Lompoc	College of Dentistry, Univ. Cal.	June 14, 1894.	June 22, 1894.	345	---	---
Charles, M. S.	Suisun	Examined Aug. 4, 5, 6, 7	---	Aug. 7, 1896.	515	---	---
Chase, Maurice	Not known	Act of March 12, 1885.	---	Sept. 6, 1885.	351	San Francisco	Nov. 29, 1886
Child, Mrs. M. M.	Santa Barbara	Act of March 12, 1885.	---	Apr. 22, 1891.	526	Santa Barbara Co.	July 24, 1891
Christensen, G. A.	San Francisco	Act of March 12, 1885.	---	Sept. 8, 1885.	379	San Francisco	Nov. 29, 1886

Christopher, T.	Santa Rosa	Act of March 12, 1885	Sept. 8, 1885	371	San Francisco	Nov. 29, 1886
Ciley, J. L.	Little Stony	Act of March 12, 1885	Sept. 8, 1885	382	Not known	Nov. 29, 1886
Clarke, W. H.	San Francisco	Act of March 12, 1885	July 23, 1885	144	San Francisco	Nov. 29, 1886
Clark, F. N.	San Francisco	Act of March 12, 1885	June 29, 1885	21	San Francisco	Nov. 29, 1886
Clark, Wm. N.	Watsonville	College of Dentistry, Univ. Cal.	June 18, 1886	493	Not known	June 18, 1885
Clayton, W. E.	Ventura	Penn. College of Dentistry	Feb. 26, 1887	278	Alameda County	Nov. 29, 1886
Clazie, F.	Oakland	Louisville Dental College	June 20, 1893	378	San Francisco	Nov. 29, 1886
Cochran, E. O.	San Francisco	Act of March 12, 1885	April 1, 1896	172	Fresno	June 27, 1896
Cockrill, R. B.	Fresno	Univ. of Maryland Col. of Dent.	Mar. 4, 1890	468	San Francisco Co.	June 30, 1885
Coffin, A. M.	Santa Ana	Indiana Dental College	Mar. 2, 1887	28	San Francisco Co.	Oct. 4, 1885
Cogswell, J. L.	San Francisco	Act of March 12, 1885	Mar. 9, 1893	41	San Francisco Co.	April 10, 1893
Cogswell, Thomas	San Diego	Indiana Dental College	Mar. 2, 1887	238	San Francisco Co.	July 24, 1885
Coke, Paul S.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 9, 1893	2	Alameda County	July 24, 1885
Cole, R. E.*	San Francisco	Act of March 12, 1885	June 23, 1885	143	Sonoma County	July 24, 1885
Cole, Hiram	Santa Rosa	Act of March 12, 1885	June 20, 1893	422	Not known	Nov. 29, 1886
Coleman, J. L.	Oakland	Louisville Dental College	Mar. 3, 1887	35	Tulare County	July 18, 1887
Collins, M. J.	Oakland	Missouri Dental College	Feb. 25, 1891	212	Tulare County	Oct. 31, 1892
Combs, H. M.	Visalia	Vanderbilt Univ. Dental Dept.	June 13, 1895	403	San Francisco	July 27, 1895
Combs, J. E.	Visalia	College of Dentistry, Univ. Cal.	Mar. 18, 1891	208	Not known	Nov. 29, 1886
Coney, D. M.	San Francisco	Univ. of Maryland, Dental Dept.	June 18, 1891	272	San Francisco	Nov. 29, 1886
Conner, W. H.	Not known	Act of March 12, 1885	Oct. 11, 1892	154	San Francisco	Nov. 29, 1886
Conradt, J. H.	San Francisco	Act of March 12, 1885	July 26, 1885	209	San Francisco Co.	Oct. 18, 1892
Conwell, C. C.	Not known	Louisville College of Dentistry	Oct. 11, 1892	37	San Francisco Co.	Oct. 18, 1892
Cook, Israel	San Francisco	Act of March 12, 1885	June 21, 1892	519	Humboldt County	Jan. 6, 1886
Cook, W. E.	Eureka	Act of March 12, 1885	June 21, 1892	434	Alameda County	Nov. 9, 1889
Cool, G. W.	Oakland	Act of March 12, 1885	July 1, 1885	175	Alameda County	Sept. 17, 1885
Cool, R. H.	San Francisco	Act of March 12, 1885	Oct. 15, 1889	420	Alameda County	Sept. 3, 1885
Coomes, A. M.	Cloverdale	Act of March 12, 1885	Sept. 11, 1885	140	San Francisco	Nov. 29, 1886
Coomes, F. E.	San Diego	Act of March 12, 1885	Sept. 11, 1885	276	Not known	Oct. 5, 1885
Cooper, J. C.	Fresno	Act of March 12, 1885	Aug. 24, 1885	510	San Diego County	Oct. 5, 1885
Cooper, M. L.	Modesto	Act of March 12, 1885	Sept. 15, 1887	7	San Diego County	Oct. 5, 1885
Cooper, E. M.	Santa Rosa	Act of March 12, 1885	June 29, 1885	74	Sonoma County	May 21, 1888
Cooper, G. W.*	Santa Rosa	Act of March 12, 1885	July 5, 1885	106	Sonoma County	May 21, 1888
Copsey, A. N.	Mendocino City	Act of March 12, 1885	Oct. 15, 1889	521	San Francisco Co.	Jan. 14, 1890
Copsey, H. B.	Ukiah	Ohio College of Dental Surgery	Feb. 6, 1890	113	San Francisco Co.	Jan. 14, 1890
Corbier, C. C.	Ukiah	Ohio College of Dental Surgery	Mar. 11, 1891	165	Mendocino Co.	Feb. 18, 1892
Cornwall, A.*	Oakland	Pennsylvania College of Den. Surg.	Mar. 2, 1892	315	Mendocino Co.	Aug. 28, 1891
Cornwall, Cecil	Oakland	Examined by Board	Mar. 2, 1892	197	Alameda County	Sept. 4, 1885
Cory, B.	Fresno	Act of March 12, 1885	July 10, 1890	134	Alameda County	Dec. 20, 1890
Couch, F. L.	Selma	Ohio College of Dental Surgery	Mar. 11, 1891	159	Yolo County	Sept. 11, 1891
Coulson, N. T.	Selma	Ohio College of Dental Surgery	Mar. 29, 1890	119	Yolo County	Sept. 11, 1891
Cowan, E. L.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 10, 1885	9	San Francisco Co.	July 5, 1890
Cragie, Henry	Los Angeles	Act of March 12, 1885	Feb. 26, 1887	488	San Francisco Co.	Nov. 21, 1887
Cragie, Henry	San Francisco	Act of March 12, 1885	Aug. 17, 1886	254	San Francisco Co.	Nov. 29, 1885

* Deceased. † Retired.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Craig, Marion W.	Oakland	Philadelphia Dental College	Feb. 25, 1887.	Mar. 12, 1892.	188	Not known.	---
Craig, W. H.	Oakland	Act of March 12, 1885.	---	July 15, 1885.	90	Alameda County.	Aug. 12, 1885
Cranz, L. F.	San Francisco	Act of March 12, 1885.	---	July 23, 1885.	145	San Francisco Co.	Nov. 29, 1885
Cranz, F. H.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896.	509	San Francisco.	Sept. 3, 1896
Crawford, J. S.	Los Angeles	Act of March 12, 1885	---	Aug. 7, 1885	217	Not known.	---
Cronkite, J. A.	Los Angeles	Examined by Board.	Aug. 10, 1894	Aug. 10, 1894	361	Los Angeles Co.	Nov. 14, 1894
Groome, Wm.	San Francisco	Act of March 12, 1885.	---	July 15, 1885.	104	San Francisco.	June 1, 1893
Gross, W. W.	Oakland	Vanderbilt University	Feb. 23, 1894.	April 12, 1895	383	San Francisco.	Nov. 29, 1886
Grossett, Truman	---	Act of March 12, 1885.	---	Aug. 24, 1885.	286	San Francisco.	Nov. 29, 1886
Grossett, E. T.	---	Act of March 12, 1885	---	---	228	San Francisco.	Nov. 29, 1886
Grow, Samuel H.	Cedarville	Act of March 12, 1885	Mar. 12, 1885.	Mar. 11, 1893	534	Modoc County.	Mar. 23, 1893
Crum, T. A.	San Francisco	Act of March 12, 1885	---	Sept. 10, 1885.	425	Butte County.	Oct. 27, 1885
Cummings, C. H.	Pacific Grove	Act of March 12, 1885.	---	Nov. 2, 1891	530	Shasta County.	Jan. 23, 1892
Cummings, Jude E.	San Francisco	Act of March 12, 1885	---	Aug. 3, 1885	189	San Francisco	Nov. 29, 1886
Cummings, E.	Berkeley	Philadelphia Dental College	Mar. 7, 1895	April 12, 1895	384	---	---
Cummings, M. F.	Berkeley	Philadelphia Dental College	Mar. 7, 1895	April 12, 1895	385	San Francisco.	Sept. 5, 1896
Cunningham, S. J.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	500	Not known	---
Cunningham, R. G.	Los Angeles	Act of March 12, 1885	---	July 18, 1885	126	---	---
Cunningham, F. R.	Los Angeles	Ohio College of Dental Surgery	Mar. 27, 1894	Sept. 6, 1894	371	---	---
Curragh, J. M.	San Francisco	Act of March 12, 1885	---	Sept. 4, 1885	342	San Francisco.	May 22, 1893
Cutlar, R.	San Francisco	Act of March 12, 1885.	---	Sept. 9, 1885	404	San Francisco.	Nov. 29, 1886
Danziger, G. A. +	San Francisco	Act of March 12, 1885	---	June 25, 1886	486	Not known	---
Darling, L. M.	Walnut, Iowa	American College Dental Surgery	Mar. 9, 1892	Mar. 7, 1896	458	San Joaquin Co.	Dec. --, 1885
Davenport, A. C.	Stockton	Act of March 12, 1885	---	June 29, 1885.	20	---	---
Davidson, J. E.	Oakland	Baltimore College of Dental Surg.	Mar. 22, 1890	Aug. 8, 1895	418	San Francisco	Without date
Davidson, Rob.	San Francisco	Examined by Board	Oct. 18, 1887	Oct. 25, 1887.	47	San Francisco	Nov. 29, 1886
Davis, H. C.	San Francisco	Act of March 12, 1885	---	Sept. 2, 1885	322	San Francisco	Aug. 12, 1885
Davis, C. E.	St. Helena	Act of March 12, 1885	---	June 29, 1885.	9	Napa County	Mar. 14, 1893
Davis, Emilie Wm.	Sydney, N. S. W.	College of Dentistry, Univ. Cal.	Mar. 9, 1892	Mar. 11, 1893	243	San Francisco	---
Davis, W. E.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	492	San Francisco	---
Davy, John W.	San José	New York College of Dentistry	Mar. 11, 1889	Sept. 16, 1893	301	---	---
Dean, G. S.	San Francisco	Act of March 12, 1885	---	Sept. 8, 1885	372	San Francisco	Nov. 29, 1886
Dean, C. O.	San Francisco	Act of March 12, 1885	---	Sept. 10, 1885.	421	San Francisco	Nov. 29, 1886
Decker, Charles W.	San Francisco	Act of March 12, 1885	---	July 17, 1885.	118	San Francisco	Nov. 29, 1886
De Crow, Warren	San José	Act of March 12, 1885	---	Aug. 17, 1885	248	Santa Clara Co.	Sept. 28, 1885
Deffenbacher, D. S.	Los Angeles	Examined by Board	Aug. 22, 1889	Aug. 24, 1889.	107	Not known	---
Deichmiller, Conrad	San Francisco	College of Dentistry, Univ. Cal.	June 14, 1894	Sept. 22, 1894	343	---	---
Dempster, James	Not known	Act of March 12, 1885	---	Sept. 9, 1885	405	San Francisco	Nov. 29, 1886
Dennis, S. W.	San Francisco	Act of March 12, 1885	---	July 1, 1885	40	San Francisco	Nov. 29, 1886
Dennis, Cecil C.	San Francisco	University of California	Mar. 9, 1893.	Mar. 11, 1893.	241	San Francisco	Apr. 10, 1893

Dentler, Edward F.	Not known	Act of March 12, 1885	July 9, 1885	79	San Francisco	Nov. 29, 1886
Derby, A. J.	Riverside	Boston Dental College	June 15, 1892	215	Los Angeles	215
Derby, Albert T.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 9, 1893	234	Not known	234
Deuel, Ernest C.	Sacramento	Baltimore College of Dentistry	Apr. 22, 1891	152	Sacramento Co.	May 19, 1893
De Vere, W. G.	Santa Ana	Chicago College of Dental Surg.	Mar. 24, 1891	324		
Dick, A. N.	Woodland	Act of March 12, 1885	Apr. 20, 1891	16	Yolo County	July 18, 1885
Dick, W. A.*	Colusa	Baltimore College of Dental Surg.	Mar. 23, 1891	161	Yolo County	Aug. 29, 1891
Dimmick, Joseph	Oakland	Act of March 12, 1885	Aug. 13, 1891	76	Alameda County	Sept. 16, 1885
Dimock, H. C.	Lompoc	Act of March 12, 1885	July 9, 1885	366	Santa Barbara Co.	Oct. 27, 1885
Dodson, E. M.	San Francisco	College of Dentistry, Univ. Cal.	Sept. 8, 1885	426	San Francisco	Sept. 3, 1895
Dohrman, W. F.	San Francisco	Philadelphia Dental College	June 13, 1895	322	San Francisco	July 7, 1893
Dorrance, F. C.	Los Angeles	College of Dentistry, Univ. Mich.	Feb. 25, 1892	197	San Francisco	July 31, 1893
Douglas, G.	Downtown	Act of March 12, 1885	June 25, 1891	260	Los Angeles	
Doulton, G. H.*	Oakland	Act of March 12, 1885	Aug. 15, 1885	237	Not known	Oct. 27, 1885
Dow, Edgar L.	Oakland	Philadelphia Dental College	Oct. 13, 1885	252	Santa Barbara Co.	Nov. 7, 1890
Dowling, Jerome	San Francisco	Examined August 4, 5, 6, 7	Oct. 13, 1890	138	Alameda County	
Doyle, E. W.	Fresno	Act of March 12, 1885	Aug. 7, 1896	519	Not known	
Drollard, T. W.	Modesto	Act of March 12, 1885	Aug. 7, 1896	215	Stanislaus Co.	Sept. 8, 1885
Drucker, G. J.	San Francisco	Act of March 12, 1885	Sept. 6, 1885	361	San Francisco Co.	Nov. 18, 1885
Drucker, W. E.*	San Francisco	Act of March 12, 1885	Aug. 15, 1885	239	San Francisco Co.	Aug. 24, 1885
Ducker, J. H.	San Mateo	Act of March 12, 1885	July 18, 1885	114	San Mateo Co.	Oct. 1, 1885
Duckett, C. S.	San Francisco	Act of March 12, 1885	July 18, 1885	127	San Francisco Co.	June 2, 1893
Dunbar, L. L.	San Francisco	Act of March 12, 1885	Aug. 29, 1885	200	San Francisco Co.	Jan. 12, 1889
Dungan, G. A.	Eureka	Philadelphia Dental College	Aug. 13, 1891	157	Humboldt Co.	Sept. 1, 1891
Dunn, R. K.	Oakland	Act of March 12, 1885	Aug. 4, 1885	345	Alameda County	Sept. 16, 1885
Dunn, Martin J.	San Francisco	College of Dentistry, Univ. Cal.	Dec. 19, 1887	53	San Francisco Co.	Feb. 7, 1888
Dunn, J. H.	Pomona	Act of March 12, 1885	Apr. 30, 1886	471	San Francisco Co.	Apr. 30, 1885
Dunn, J. M.	Oakland	College of Dentistry, Univ. Cal.	June 9, 1894	332	Los Angeles Co.	Nov. 29, 1886
Dutch, Wm.*		Act of March 12, 1885	Sept. 8, 1885	370	San Francisco	Nov. 29, 1886
Dyer, J. J.*	Selma	Act of March 12, 1885	Sept. 2, 1885	323	San Francisco	Nov. 29, 1886
Earl, Geo. W.	Sonora	Kansas City Dental College	Feb. 1, 1888	58	Not known	May 9, 1887
Eastman, W. W.	Sonora	Act of March 12, 1885	Sept. 8, 1885	277	Tuolumne Co.	Aug. 2, 1892
Eddy, E. D.	San Jacinto	Examined by Board	Aug. 3, 1892	205	San Mateo Co.	Aug. 31, 1895
Edmiston, B. T.	Santa Barbara	Western Dental College	Aug. 8, 1895	417	San Bernardino	Oct. 29, 1888
Edmonds, J. H.	Napa	Philadelphia Dental College	May 7, 1888	73	Santa Barbara Co.	
Edmonds, Marion J.	Napa	New York College of Dentistry	Feb. 27, 1874	249	San Francisco	Nov. 29, 1886
Edwards, J. W.	San Francisco	Act of March 12, 1885	Mar. 11, 1889	313	San Francisco	Nov. 29, 1886
Edwards, B. F.	Oakland	Act of March 12, 1885	July 31, 1885	165	Alameda Co.	Nov. 29, 1886
Edwards, C. O.	San José	Ohio College of Dentistry	June 15, 1895	388	San Francisco Co.	Nov. 29, 1886
Eisen, E. G.	San Francisco	Act of March 12, 1885	Sept. 4, 1885	849	Contra Costa Co.	Dec. 17, 1892
Elliott, D. C.	Concord	College of Dentistry, Univ. Cal.	Dec. 16, 1892	216	San Francisco	Nov. 29, 1886
Emerson, E. W.	San Francisco	Act of March 12, 1885	July 18, 1885	129	San Francisco	Nov. 29, 1886
Engs, John S.	Oakland	Act of March 12, 1885	Nov. 17, 1893	312	Tehama Co.	Aug. 17, 1885
Epperson, J. H.	Salt Lake	Boston Dental College	June 30, 1888	203		
		Act of March 12, 1885	Aug. 7, 1885			

* Deceased. † Retired.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Erhard, P. C.	San Francisco	University of California	Mar. 13, 1890.	Mar. 11, 1893.	247	San Francisco	Oct. 7, 1893 Aug. 17, 1894
Eshbach, D. M.	Sonoma	Act of March 12, 1885	July 9, 1885	July 9, 1885	75	Not known	-----
Esterle, A. M.	Red Bluff	Missouri Dental College	Jan. 2, 1886	Mar. 13, 1886	22	Not known	-----
Everts, Chas. F.	Oakland	Examined by Board	Aug. 10, 1894	Aug. 10, 1894	368	-----	-----
Ewing, F. L.	San Francisco	Kansas City Dental College	Mar. 12, 1890	Aug. 8, 1895	433	San Francisco	Jan. 21, 1896
Fare, John	Oakland	Act of March 12, 1885	-----	Sept. 29, 1886	496	Not known	-----
Farnum, C. H.	Napa	Act of March 12, 1885	-----	Sept. 8, 1885	380	-----	-----
Farnet, E. W.	Oakland	Act of March 12, 1885	-----	Oct. 8, 1894	341	-----	-----
Ferguson, T. H.	San Francisco	Act of March 12, 1885	-----	July 15, 1885	121	San Francisco	Nov. 29, 1886
Fickett, S. H.	Stockton	Act of March 12, 1885	-----	July 15, 1885	91	San Joaquin Co.	Oct. 30, 1885
Finigan, L.	San José	Act of March 12, 1885	-----	Aug. 7, 1885	207	Not known	-----
Fisher, F. H.	Oakland	Examined by Board	July 10, 1890	July 12, 1890	127	Alameda Co.	Oct. 21, 1890
Fisher, Mrs. Minnie	San José	Act of March 12, 1885	-----	Aug. 26, 1885	292	Santa Clara Co.	Oct. 1, 1885
Fitch, O. P.	San Rafael	College of Dentistry, Univ. Cal.	June 13, 1895	June 15, 1895	408	El Dorado	Aug. 25, 1895
Fitzgibbon, J. G.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895	June 15, 1895	405	San Francisco	Aug. 3, 1895
Fitzpatrick, W. E.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 10, 1885	Nov. 24, 1885	5	San Francisco	Jan. 15, 1886
Flemming, C. K.	San José	Act of March 12, 1885	-----	June 2, 1886	481	Santa Clara Co.	June 5, 1886
Fletcher, Thos.	San Francisco	Examined by Board	Aug. 1, 1893	Aug. 4, 1893	296	San Francisco	Aug. 9, 1893
Flood, A. M.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895	June 23, 1895	463	San Francisco	June 25, 1895
Forbes, W. W.	Sacramento	Examined by Board	-----	Aug. 9, 1895	436	-----	-----
Ford, Lewis E.	Los Angeles	Chicago College of Dental Surgery	Mar. 22, 1892	Mar. 11, 1893	252	Los Angeles Co.	June 26, 1893
Ford, A. J.	Quincy	College of Dentistry, Univ. Cal.	June 13, 1895	Aug. 29, 1895	442	Plumas	Apr. 2, 1895
Forrest, J. M.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	477	-----	-----
Fowler, A. A.	Evergreen	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	496	-----	-----
Fox, H. B.	Not known	Act of March 12, 1885	-----	July 15, 1885	111	San Francisco	Dec. 11, 1885
Fox, Geo. L.	Fresno	University Michigan Dental Dept.	Mar. 28, 1883	Nov. 2, 1891	172	San Francisco	Nov. 29, 1886
Fox, J. M.	Seattle, Wash.	Act of March 12, 1885	-----	July 26, 1885	159	San Francisco	Nov. 29, 1886
Frazer, T. J.	San Francisco	Philadelphia Dental College	Aug. 13, 1890	Oct. 13, 1890	139	San Francisco	Oct. 22, 1890
Frazer, J. A.	San José	Baltimore College of Dental Surg.	Mar. 21, 1892	Aug. 3, 1892	193	Santa Clara Co.	Aug. 11, 1892
French, L. W.	Los Angeles	Act of March 12, 1885	-----	Sept. 12, 1885	451	Not known	-----
Fuellgraft, A. W. E.	Los Angeles	University Michigan Dental Dept.	Mar. 24, 1880	Apr. 27, 1889	92	Not known	-----
Fuller, C. H.	San Francisco	Act of March 12, 1885	-----	Aug. 3, 1885	196	San Francisco	Aug. 3, 1885
Fuller, F. N.	Redding	Act of March 12, 1885	-----	Sept. 8, 1885	381	Tehama Co.	-----
Gabbs, E. S.	Sutter Creek	Act of March 12, 1885	-----	Aug. 3, 1885	198	Amador County	Dec. 5, 1885
Gabbs, M. F.	San Francisco	Act of March 12, 1885	-----	Sept. 8, 1885	378	San Francisco	Nov. 29, 1886
Galbraith, M. D.	Cloverdale	Act of March 12, 1885	-----	Nov. 5, 1886	31	Sonoma County	Apr. 1, 1887
Galbreath, A. J.	Stockton	Pennsylvania Col. of Dent. Surg.	Feb. 26, 1881	Jan. 7, 1886	449	-----	-----
Gallot, Jules	Not known	College of Dentistry, Univ. Tenn.	Feb. 23, 1892	Nov. 10, 1887	513	Not known	-----
Gallup, Thomas E.	Santa Clara	Act of March 12, 1885	-----	July 18, 1885	115	Santa Clara Co.	May 19, 1893

Gambetz, M. R.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 12, 1889	Aug. 4, 1893	287	Not known	Not known
García, M. J.	Mazatlan, Mex.	Examined by Board	Aug. 20, 1889	Aug. 22, 1889	397	Not known	Oct. 20, 1885
Gardner, Thos.	Lakeport	Act of March 12, 1885	Aug. 20, 1889	Sept. 4, 1885	347	Alameda County	Mar. 31, 1886
Gardner, Edmund	Sacramento	Philadelpia Dental College	Feb. 27, 1887	Nov. 24, 1885	10	Sierra County	---
Gardner, Robt. C.	Fresno	Act of March 12, 1885	Mar. 27, 1888	July 23, 1885	146	Not known	Nov. 15, 1888
Garnett, W. M.	Santa Ana	Chicago College of Dental Surg.	Mar. 27, 1888	Nov. 12, 1888	89	Presno County	---
Garrison, D. M.	San Luis Obispo	Ohio College of Dental Surgery	Mar. 3, 1880	Apr. 20, 1894	237	San Luis Obispo	Feb. 1, 1886
Garrison, D. R.	San Francisco	Act of March 12, 1885	Feb. 25, 1885	Jan. 23, 1894	317	Alameda County	July 26, 1894
Gaston, W. A.	San José	College of Dent., Vanderbilt Univ.	Dec. 1, 1885	June 2, 1886	476	Santa Clara Co.	June 10, 1886
Gaston, A. A.	San José	Act of March 12, 1885	Dec. 1, 1885	Dec. 5, 1885	13	Santa Clara Co.	Dec. 5, 1885
Gates, Mrs. I. M.	Eureka	Examined by Board	---	Sept. 18, 1895	543	Humboldt Co.	Oct. 8, 1895
Gates, O. J. *	San Francisco	Act of March 12, 1885	June 18, 1896	June 22, 1894	539	---	---
Gedje, H. E.	Not known	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	507	San Francisco	Nov. 29, 1886
George, E.	San Francisco	Act of March 12, 1885	June 14, 1894	Sept. 11, 1895	447	---	---
Gilbon, J. A.	Not known	College of Dentistry, Univ. Cal.	Feb. 28, 1889	June 22, 1894	340	Not known	---
Gilson, Y. W.	San Francisco	Philadelpia Dental College	Feb. 28, 1889	Aug. 22, 1880	105	San Francisco	May 7, 1889
Gillette, B. M.	San Diego	Pennsylvania Col. of Dent. Surg.	Mar. 1, 1889	Mar. 13, 1885	96	San Diego County	June 1, 1886
Gilman, S. M.	Oakland	Act of March 12, 1885	Mar. 1, 1889	Sept. 9, 1885	21	Alameda County	May 31, 1893
Gilstrap, J. M.	Oakland	Act of March 12, 1885	Mar. 12, 1890	July 15, 1885	408	Tulare County	July 15, 1885
Girardey, W. O.	Sacramento	Ohio College of Dental Surgery	Mar. 12, 1890	Apr. 22, 1894	153	Sacramento Co.	Dec. 30, 1891
Giusti, J. J.	San Francisco	University of Michigan	June 26, 1890	Oct. 13, 1890	141	San Francisco	Jan. 17, 1891
Gleaves, A. D.	Los Angeles	Act of March 12, 1885	Feb. 25, 1887	July 1, 1888	33	Not known	---
Glidden, M. D.	Stockton	Philadelpia Dental College	Feb. 25, 1887	Sept. 4, 1885	61	Alameda County	Feb. 13, 1886
Goddard, C. I.	San Francisco	Act of March 12, 1885	---	Sept. 4, 1885	336	San Francisco	Nov. 29, 1886
Goe, Samuel P.	San Francisco	Act of March 12, 1885	---	Sept. 4, 1885	340	San Francisco	Nov. 29, 1886
Gonzales, L. T. *	Groville	Act of March 12, 1885	Mar. 28, 1887	Sept. 4, 1885	335	San Joaquin Co.	Oct. 1, 1885
Goodell, L. F. *	San Francisco	Chicago College of Dental Surg.	Dec. 1, 1885	Dec. 19, 1887	56	Butte County	June 15, 1888
Goodearle, J. H.	San Francisco	Examined by Board	Dec. 1, 1885	Dec. 5, 1885	12	San Francisco	Jan. 25, 1886
Gore, Arthur	Santa Cruz	Act of March 12, 1885	---	June 30, 1885	26	Not known	---
Gordon, O. L.	San Francisco	Act of March 12, 1885	---	July 23, 1885	136	San Francisco	Nov. 29, 1886
Gorton, C. D.	Pomona	Act of March 12, 1885	Mar. 28, 1887	Sept. 29, 1886	494	Los Angeles Co.	---
Gothard, J. T.	San Diego	Act of March 12, 1885	June 14, 1894	Aug. 29, 1885	317	Not known	---
Gould, H. W.	San Francisco	College of Dentistry, Univ. Cal.	June 14, 1894	June 22, 1894	342	Yolo County	Nov. 8, 1891
Graham, G. F.	Woodland	Louisville College of Dentistry	June 17, 1891	Nov. 2, 1891	178	Not known	---
Grant, J. T.	Woodland	Act of March 12, 1885	Feb. 24, 1885	Sept. 1, 1885	414	Santa Clara Co.	Feb. 3, 1892
Graves, W. L. *	San José	Ohio College of Dental Surgery	Mar. 1, 1892	Dec. 16, 1892	179	Nevada County	Dec. 30, 1892
Gray, G. W.	Not known	Indiana College of Dentistry	June 14, 1892	June 22, 1894	217	San Francisco	July 14, 1894
Gray, D. H.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 1, 1892	July 18, 1885	341	Not known	---
Gray, R. F.	Idone	Act of March 12, 1885	Mar. 1, 1892	Dec. 16, 1892	131	San Francisco	Dec. 19, 1892
Gray, John	Not known	Indiana College of Dentistry	June 18, 1896	Aug. 5, 1896	218	San Francisco	---
Gray, C. F.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	---	490	---	---

* Deceased.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Greenlaw, W. A.	San Francisco	Pennsylvania College of Dentistry	Mar. 2, 1892	Aug. 3, 1892	201	San Francisco	May 4, 1893
Griffith, A. C.	Paso Robles	Baltimore College of Dentistry	Mar. 21, 1892	June 14, 1893	259	San Francisco	June 1, 1893
Griffiths, Allen	Oakland	Act of March 12, 1885		Mar. 10, 1885	417	San Francisco	Nov. 29, 1886
Griner, O. T.	Lakeport	Kansas City Dental College	Mar. 4, 1892	June 22, 1894	348	Lake County	July 6, 1894
Griswold, W. F.		Act of March 12, 1885		Sept. 9, 1885	397	San Francisco	Nov. 29, 1886
Grossman, M. F.	Honolulu, H. I.	Pennsylvania Dental College	Feb. 27, 1891	Aug. 1, 1893	275	San Francisco	Aug. 5, 1893
Grotelend, George	Redding	College of Dentistry, Univ. Penn.	May 1, 1889	Aug. 1, 1893	272	Not known	
Grove, L. H.	San Diego	N. W. University Dental College	Apr. 6, 1896	Sept. 23, 1896	462	San Diego	June 27, 1896
Gunsburger, B. M.	San Francisco	Act of March 12, 1885		Sept. 10, 1885	415	San Francisco	Nov. 29, 1886
Hackett, F. M.	San Francisco	Act of March 12, 1885		June 29, 1885	4	Not known	
Hackett, C. C.	Napa	Act of March 12, 1885		Aug. 26, 1885	288	Napa County	Sept. 10, 1885
Hackett, S. A.	Oakland	Act of March 12, 1885		Sept. 10, 1885	427	Alameda County	June 27, 1886
Haines, B. W.	San Francisco	Act of March 12, 1885		Sept. 2, 1885	330	San Francisco	Nov. 29, 1886
Haines, N. J.	Stockton	Act of March 12, 1885		Aug. 27, 1885	301	San Joaquin Co.	Oct. —, 1885
Hale, R. L.	Martinez	College of Dentistry, Univ. Cal.	June 13, 1895	June 15, 1895	414		
Hall, E. C.	San José	Act of March 12, 1885	Nov. 8, 1882	Sept. 4, 1885	339	Not known	
Hall, T. W.	Oakland	Act of March 12, 1885	Mar. 28, 1883	Aug. 20, 1885	261	Alameda County	Sept. 14, 1885
Hall, W. H.	Otay	Dental Department, Univ. Mich.	Mar. 9, 1893	Mar. 7, 1896	456	San Diego County	Apr. 21, 1896
Halsey, W. H.	Oakland	College of Dentistry, Univ. Cal.		Mar. 11, 1883	237	Alameda	Mar. 27, 1893
Halsey, I. S.	Oakland	Act of March 12, 1885		July 7, 1885	60	Not known	
Halstead, E. P.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895	June 15, 1895	410	Not known	
Hamilton, Cyrus	Newman	Philadelphia Dental College	1873	Aug. 1, 1893	277	Not known	
Hammell, Annie	Los Angeles	Pennsylvania Dental College	Feb. 28, 1874	Aug. 1, 1893	274	Not known	
Hann, W. D.*	San Diego	Act of March 12, 1885		July 7, 1885	68	San Joaquin Co.	Oct. —, 1885
Harbison, H. R.	San Francisco	Pennsylvania College of Den. Surg.	Feb. 27, 1880	July 29, 1886	27	San Diego Co.	May 22, 1893
Hardcastle, George	San Francisco	Act of March 12, 1885		June 30, 1885	30	San Francisco	Nov. 29, 1886
Harding, W. C.	San Francisco	Act of March 12, 1885		Sept. 12, 1885	452	Solano County	Oct. 24, 1885
Hardy, J. R.	Oakland	College of Dentistry, Univ. Cal.	June 13, 1895	Aug. 8, 1895	432	Alameda County	Aug. 27, 1895
Hargrave, G. H.	Out of State	Univ. of Maryland, Dental Dept.	Mar. 17, 1892	Mar. 11, 1893	251	Contra Costa Co.	Mar. 22, 1893
Harlan, C. N.*		Act of March 12, 1885		Nov. 5, 1886	499	Not known	
Hart, O. P.	Needles	Univ. of Tennessee, Dental Dept.	Feb. 22, 1888	Aug. 1, 1893	281	Not known	
Hart, A. C.	San Francisco	Univ. of Pennsylvania, Col. of Dent.	May 6, 1892	Dec. 16, 1892	220	San Francisco	Dec. 21, 1892
Harth, A. P.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	508		
Hartman, W. P.	Shasta City	Act of March 12, 1885		Oct. 25, 1887	511	Not known	
Harrison, E. L.	San Francisco	Act of March 12, 1885		Sept. 9, 1885	399	San Francisco	Nov. 29, 1886
Harris, Geo. M.	North San Juan	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	488		
Harris, S. M.	Grass Valley	Act of March 12, 1885		July 15, 1885	99	Not known	
Harris, M. P.	Grass Valley	Baltimore College of Dental Surg.	Mar. 2, 1885	Sept. 2, 1885	1	Not known	
Haslehurst, A. O.	San Francisco	Act of March 12, 1885		Aug. 29, 1885	312	San Francisco Co.	Nov. 29, 1886
Hastings, Robert	Not known	Act of March 12, 1885		Sept. 12, 1885	449	San Francisco	Nov. 29, 1886

Hatch, J. H.	San Francisco.	Act of March 12, 1885.	Feb. 27, 1863.	July 26, 1885.	151	San Francisco Co.	Oct. 1, 1885
Hatcher, S. H.	Ontario.	Vanderbilt University.	Feb. 27, 1895.	Mar. 7, 1896.	457	San Bernardino Co.	Mar. 20, 1896
Haughwout, H. C.	Los Angeles	Examined by Board.	Aug. 10, 1894.	Aug. 10, 1894.	358	---	---
Hauselt, C. P.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895.	June 15, 1895.	397	Placer County	---
Hauver, J. C.	Auburn.	Examined by Board.	---	June 2, 1886.	475	---	---
Hawley, A. W.	San Francisco.	College of Dentistry, Univ. Cal.	June 18, 1896.	Aug. 5, 1896.	505	Los Angeles Co.	May 18, 1888
Hays, A. P.	Los Angeles	Philadelphia Dental College.	Mar. 1, 1888.	May 7, 1888.	70	Nevada County	Aug. 12, 1885
Hays, I. W., Jr.	Grass Valley	Act of March 12, 1885.	---	July 15, 1885.	92	---	---
Head, A. W.	Chicago.	N. W. Univ. Dental Dept.	Apr. 6, 1896.	June 23, 1896.	464	---	---
Head, W. W.	Susanville.	Examined August 4, 5, 6, 7.	---	Aug. 2, 1896.	518	---	---
Hearn, F. G.	Yreka.	Act of March 12, 1885.	---	July 9, 1885.	81	Siskiyou County.	Sept. 10, 1892
Hedrick, L.	Ventura.	Act of March 12, 1885.	---	Aug. 17, 1885.	257	Ventura County.	Sept. 12, 1885
Heider, W. T.	Oakland.	College of Dentistry, Univ. Cal.	Nov. 13, 1890.	Aug. 1, 1893.	268	Not known.	---
Heino, Julius.	San Francisco.	Act of March 12, 1885.	---	July 18, 1885.	123	San Francisco	---
Hempstead, J. E.	Oakland.	Act of March 12, 1885.	---	Sept. 29, 1886.	495	Not known.	---
Hendricks, Peter.	Los Angeles	Louisville College of Dentistry.	June 18, 1889.	Nov. 2, 1891.	170	San Angeles Co.	Mar. 18, 1892
Hendricks, John D.	Hollister.	Act of March 12, 1885.	---	June 23, 1885.	10	San Benito Co.	July 10, 1885
Hendricks, H. T.	Hanford.	Act of March 12, 1885.	---	July 15, 1885.	98	Julare Co.	July 10, 1885
Henderson, W. R.	Stockton.	Act of March 12, 1885.	---	June 2, 1886.	485	San Joaquin Co.	Dec. —, 1886
Henderson, R. W.	Stockton.	Act of March 12, 1885.	---	July 31, 1885.	174	San Joaquin Co.	Oct. 30, 1885
Herriek, C. A.	Jackson.	College of Dentistry, Univ. Cal.	Nov. 13, 1890.	Nov. 2, 1891.	171	Amador County.	Nov. 16, 1891
Hibbard, C. W.	San Francisco.	Act of March 12, 1885.	---	July 9, 1885.	77	San Francisco	Nov. 29, 1886
Higgins, C. R.	Fort Bragg.	Act of March 12, 1885.	---	July 31, 1885.	179	Mendocino Co.	Jan. 25, 1889
Hill, A. S.	San Francisco	Act of March 12, 1885.	---	July 2, 1885.	43	San Francisco	Nov. 29, 1886
Hill, W. B.	Not known.	Act of March 12, 1885.	---	May 17, 1887.	508	Not known.	---
Hill, A. L.	San Francisco	Act of March 12, 1885.	---	Aug. 29, 1885.	318	San Francisco Co.	June 1, 1893
Hill, Thomas L.	San Francisco	Act of March 12, 1885.	---	Aug. 3, 1885.	195	San Francisco Co.	Nov. 29, 1886
Hill, A. B.	San Francisco	Act of March 12, 1885.	---	July 31, 1885.	171	San Francisco Co.	May 20, 1889
Hilliard, S. W.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896.	Aug. 5, 1896.	478	---	---
Hipkins, H.	San Francisco	Royal College of Dental Surgery.	July 20, 1876.	Aug. 13, 1891.	156	Not known.	---
Hitchcock, J. W.	Watsonville.	Examined by Board.	Oct. 18, 1887.	Oct. 25, 1887.	48	Not known.	---
Hodgen, Joseph D.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 29, 1887.	Aug. 2, 1889.	104	Yolo County.	Sept. 7, 1889
Hodgen, I. N.*	Woodland.	Act of March 12, 1885.	---	July 9, 1885.	70	Not known.	---
Hoffman, M.*	San Francisco	Act of March 12, 1885.	---	Sept. —, 1885.	411	Mendocino Co.	---
Hofling, Fred.	Ukiah.	Act of March 12, 1885.	---	Aug. 29, 1885.	314	San Francisco	Nov. 29, 1886
Hogshead, W. H.	Ukiah.	Act of March 12, 1885.	---	July 9, 1885.	73	Mendocino Co.	Sept. 17, 1885
Hollingsworth, M. W.	Los Angeles	Act of March 12, 1885.	---	July 7, 1885.	62	Not known.	---
Hollingsworth, J. W.	Los Angeles	Act of March 12, 1885.	---	July 7, 1885.	61	Not known.	---
Holloway, E. S.	College City.	College of Dentistry, Univ. Cal.	June 13, 1895.	June 15, 1895.	400	---	---
Holmes, L. B.	Woodland.	Act of March 12, 1885.	---	June 29, 1885.	3	Not known.	---
Holmes, C. A.	Mendocino.	Act of March 12, 1885.	---	Aug. 29, 1885.	320	Not known.	---
Holmes, Stephen.	San José.	Act of March 12, 1885.	---	July 16, 1886.	489	Stanislaus Co.	July 3, 1886
Hooker, A. O.	San José.	Act of March 12, 1885.	---	---	231	Not known.	---
Hooker, A. H.	San Diego.	Act of March 12, 1885.	---	Nov. 10, 1887.	512	San Diego	Feb. 15, 1888

* Deceased.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Horner, J. Van C.	Pacific Grove	Act of March 12, 1885	Mar. 24, 1890	July 15, 1885.	88	Not known	-----
Howard, E. G.	Los Angeles	Chicago College of Dentistry.	Mar. 24, 1890	Aug. 8, 1895.	415	-----	-----
Howard, J. L.	Marysville	Vanderbilt Univ. Dental Dept.	Feb. 25, 1890.	Apr. 22, 1890.	146	Yuba County	May 11, 1891
Howe, E. B.	Riverside	Examined by Board	Aug. 10, 1894.	Aug. 10, 1894.	366	Los Angeles	Sept. 25, 1894
Hubbard, Geo. A.	San Francisco	Act of March 12, 1885	-----	Nov. 17, 1893.	537	-----	-----
Hubbell, A. B.	Los Angeles	Act of March 12, 1885	-----	Sept. 12, 1885.	464	-----	-----
Hudley, Geo. H.	Honolulu	College of Dentistry, Univ. Cal.	Mar. 9, 1893.	Mar. 11, 1893.	236	San Francisco	Mar. 23, 1893
Huebner, O. C.	Healdsburg	College of Dentistry, Univ. Cal.	-----	Sept. 12, 1885.	460	Not known	-----
Hultberg, F. L.	San Francisco	College of Dentistry, Univ. Cal.	Dec. 4, 1888.	Oct. 13, 1890.	140	San Francisco	Oct. 20, 1890
Humphrey, J. G.	Alameda	College of Dentistry, Univ. Cal.	Dec. 3, 1886.	Nov. 17, 1893.	308	-----	-----
Hunsaker, A. I.	Fresno	Act of March 12, 1885	-----	Sept. 1, 1885.	469	Tulare County	Aug. 5, 1885
Hunsaker, G. W.	Tulare	Act of March 12, 1885	-----	Aug. 15, 1885.	233	Tulare County	Aug. 5, 1885
Hurd, E. L.	San Diego	Philadelphia Dental College	Feb. 25, 1887.	Mar. 21, 1888.	66	San Diego Co.	April 4, 1888
Hurt, J. M.	Pomona	Examined by Board	Oct. 16, 1888.	Oct. 18, 1888.	78	Not known	-----
Husted, Guy B.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896.	Aug. 5, 1896.	486	San Francisco	Sept. 4, 1896
Husted, F. R.	San José	Examined August 4, 5, 6, 7.	-----	Aug. 7, 1896.	321	-----	-----
Hutchins, J. M.	Alturas	Act of March 12, 1885	-----	July 31, 1885.	180	Modoc County	July 18, 1892
Hutchinson, J. E.	San Francisco	Act of March 12, 1885	-----	Oct. 15, 1889.	522	San Francisco	Nov. 7, 1889
Hutton, J. A. D.	Berkeley	Act of March 12, 1885	-----	Sept. 8, 1885.	392	Not known	-----
Hyde, A. T.	Merced	Examined by Board	-----	July 10, 1890.	130	San Francisco	Aug. 18, 1890
Hyde, C. G.	Merced	Examined by Board	-----	July 10, 1890.	131	San Francisco	Aug. 18, 1890
Igthart, T. N.	San Francisco	Act of March 12, 1885	-----	July 26, 1885.	162	San Francisco	July 26, 1885
Ingersoll, A. E. +	Eureka	Act of March 12, 1885	-----	Aug. 7, 1885.	290	Not known	-----
Inglish, Willard P.	Vacaville	Missouri Dental College	Mar. 10, 1892.	Aug. 1, 1893.	268	Not known	-----
Jacobs, B. R.*	Oakland	Act of March 12, 1885	-----	Aug. 7, 1885.	208	San Francisco	Nov. 29, 1886
Jacobs, F. O.	San Francisco	Examined by Board	Aug. 10, 1894.	Aug. 7, 1885.	363	-----	-----
Janes, R. K.	Pasadena	College of Dentistry, Univ. Cal.	Nov. 13, 1890.	Dec. 16, 1892.	222	San Francisco	Dec. 21, 1892
Jenkins, O. C.	San Francisco	Act of March 12, 1885	-----	July 31, 1885.	175	Los Angeles Co.	-----
Jennins, E. L.	Not known	Dental Department, Univ. Mich.	May 21, 1890.	June 5, 1890.	420	Not known	-----
Jewell, W. S.	Oakland	Act of March 12, 1885	-----	Sept. 10, 1885.	419	San Francisco	Nov. 29, 1886
Jewett, Stanley	Marysville	College of Dentistry, Univ. Cal.	June 14, 1894.	June 22, 1894.	339	Alameda	July 12, 1894
Johnston, J. H.	San Francisco	Act of March 12, 1885	-----	July 9, 1885.	72	Not known	-----
Johnston, Robert	Eureka	Pennsylvania Dental College	Nov. 19, 1890.	Apr. 22, 1891.	150	Duplicate issued	-----
Jones, H. McK.	Cloverdale	Philadelphia Dental College	Feb. 24, 1888.	Aug. 15, 1888.	76	Humboldt Co.	Dec. 5, 1888
Jeffrey, Jos. A.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 29, 1887.	Dec. 19, 1887.	55	Sonoma County	May 23, 1888
Kauffman, L. H.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895.	June 15, 1895.	411	-----	-----
Keckham, E. T.	Santa Maria	Act of March 12, 1885	-----	July 9, 1885.	80	San Francisco Co.	Nov. 29, 1886
Kemp, Van Ee, F.	San Francisco	Baltimore College of Dental Surg.	Mar. 21, 1892.	Jan. 23, 1894.	313	-----	-----
Kennedy, A. S.	Los Angeles	Indiana Dental College.	-----	July 18, 1885.	112	San Francisco Co.	Nov. 29, 1888
		University of Michigan	June 27, 1895.	Aug. 8, 1895.	416	-----	-----

Kennedy, W. F.	Los Angeles	Indiana Dental College.	Feb. 28, 1882.	Sept. 16, 1893.	302	Not known	Oct. 7, 1885
Kenworthy, L.	San Leandro	Indiana Dental College.		Aug. 27, 1885	302	Alameda County	
Kestler, F. S.	Sacramento	Baltimore College of Dental Surg.	Mar. 21, 1892	Aug. 3, 1892	194	Not known	
Key, J. W.	San Francisco	Act of March 12, 1885		Aug. 27, 1885	300	San Francisco Co.	Oct. 14, 1892
Key, T. B.	San Francisco	Act of March 12, 1885		Nov. 28, 1885	503	Not known	
Kimerer, L. L.	Marysville	Indiana College	Mar. 27, 1895	June 15, 1895	391	(Sutter County Yuba County)	July 3, 1895 July 6, 1895
Kingsbury, W. B.*		Act of March 12, 1885		June 30, 1885	25	Not known	
King, John Jay	Los Angeles	Act of March 12, 1885		Sept. 4, 1885	348	San Francisco Co.	Nov. 29, 1886
King, J. F.	Merced	Act of March 12, 1885		Sept. 4, 1885	344	Santa Clara Co.	Sept. 25, 1888
King, L. A.	San Francisco	Act of March 12, 1885		July 15, 1885	94	San Francisco Co.	Feb. 8, 1886
King, W. Z.	San Francisco	Act of March 12, 1885		Aug. 17, 1885	244	San Francisco	Nov. 29, 1886
Kirkpatrick, H. C.	Santa Cruz	Act of March 12, 1885		Aug. 29, 1886	490	Not known	
Klein, N.	San José	Act of March 12, 1885		Aug. 17, 1885	253	Santa Clara Co.	Sept. 29, 1885
Knap, A. R.*		Act of March 12, 1885		Nov. 5, 1886	500	Not known	
Knepper, G.	Los Angeles	Examined by Board	Oct. 18, 1887	Oct. 25, 1887	50	Not known	
Knowles, S. F.	San Francisco	Act of March 12, 1885		Aug. 11, 1885	225	Alameda County	Feb. 5, 1886
Knowles, W. A.	San Francisco	Act of March 12, 1885	Jan. 27, 1879	Aug. 26, 1885	289	Alameda County	Feb. 11, 1886
Knowlton, J. S.	San Francisco	Act of March 12, 1885		Sept. 8, 1885	394	Not known	
Knox, H. E.	Oakland	Act of March 12, 1885		July 9, 1885	83	Alameda County	Sept. 3, 1885
Koehler, Frank	Sunol	Act of March 12, 1885		Aug. 29, 1885	309	Not known	
Kriechbaum, G. H.	Mexico	Act of March 12, 1885		July 15, 1885	105	Not known	
Krueger, O. F.	Healdsburg	Act of March 12, 1885		June 2, 1886	482	Not known	
Kuns, C. A.	Los Angeles	College of Dentistry, Univ. Tenn.	Mar. 22, 1894	Oct. 8, 1894	375	Trinity County	May 9, 1887
La Bree, W. H.	Weaverville	Act of March 12, 1885		Sept. 8, 1885	389	Not known	
La Due, W. K.	Plymouth	Act of March 12, 1885		Aug. 20, 1885	267	Not known	
La Force, Jos. E.	Los Angeles	Baltimore Dental College	Mar. 21, 1892	Dec. 21, 1894	379	Los Angeles Co.	Jan. 4, 1895
Lancaster, C. E.	North San Juan	Act of March 12, 1885		Sept. 10, 1885	428	Not known	
Lane, F. J.	San Francisco	Philadelphia Dental College	Feb. 24, 1888	Oct. 18, 1888	81	San Francisco	Jan. 19, 1893
Lane, C. S.	Oakland	Act of March 12, 1885		July 15, 1885	110	Alameda County	May 2, 1893
Larison, C. A.	Yreka	Act of March 12, 1885		July 7, 1885	65	Siskiyou County	Aug. 11, 1885
Larkin, Geo. W.	Sacramento	Examined Aug. 4, 5, 6, 7		Aug. 7, 1896	516	San Francisco	Nov. 29, 1886
Lawrence, Geo. O.	San Francisco	Act of March 12, 1885		July 23, 1885	135	San Francisco	Aug. 29, 1893
Lawton, W. J. P.	San Francisco	Indiana Dental College	Mar. 7, 1888	Mar. 11, 1893	254	Santa Clara Co.	Sept. 29, 1885
Ledyard, F. K.	San José	Act of March 12, 1885		Apr. 3, 1885	187	Santa Barbara Co.	Oct. 27, 1885
Lee, D. B.	Santa Barbara	Act of March 12, 1885		July 31, 1885	178	Not known	
Lee, E. W.*	San Francisco	Act of March 12, 1885		Sept. 4, 1885	334	Not known	
Lee, L. A.	San Francisco	Act of March 12, 1885		Sept. 12, 1885	461	Not known	
Leek, G. W.	San Francisco	Act of March 12, 1885		Aug. 24, 1885	285	San Francisco	Nov. 29, 1886
Leek, L. G.	San Francisco	Act of March 12, 1885		Aug. 27, 1885	299	San Francisco	Sept. 19, 1892
Lemon, G. B.	Salinas	Act of March 12, 1885		June 24, 1885	18	Monterey County	
Leonard, G. N.	San Diego	Univ. Michigan Dental Dept.	June 30, 1887	Feb. 1, 1888	62	San Diego County	April 30, 1888
Leonard, J. G.	Susanville	Act of March 12, 1885	Oct. 17, 1888	Oct. 18, 1888	516	Lassen County	Nov. 15, 1888
Leonardi, C. J.		Pennsylvania College of Dentistry	May 6, 1892	Aug. 3, 1892	200	Not known	

* Deceased. † Retired.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Levkowicz, M. W.	San Francisco	College of Dentistry, Univ. Penn.	May 1, 1891	June 14, 1893	263	San Francisco	Aug. 7, 1893
Lewis, W. F.	Oakland	Examined by Board	Oct. 16, 1888	Nov. 12, 1888	88	Alameda County	May 22, 1890
Libbey, J. L.	Watsonville	Act of March 12, 1885		July 31, 1885	184	Not known	
Lightbody, H., Jr.		Act of March 12, 1885		Sept. 11, 1885	432	Not known	
Light, W. W.	Sacramento	Act of March 12, 1885		April 8, 1885	365	Not known	
Lightcap, S. E.	Not known	Act of March 12, 1885		July 18, 1885	125	Not known	
Likens, J. W.	San Francisco	College of Dentistry, Univ. Cal.	June 14, 1894	Dec. 21, 1894	376	Sonoma County	
Litchfield, Oscar	Healdsburg	College of Dentistry, Univ. Cal.	Mar. 9, 1893	Mar. 11, 1893	233	Los Angeles Co.	Mar. 24, 1893
Little, F. F.	Pomona	Dental Department, Univ. Mich.	Mar. 4, 1880	June 5, 1890	121	Not known	Sept. 12, 1890
Little, G. B.	San Francisco	Dental Department, Univ. Mich.	June 29, 1893	Aug. 3, 1893	285	Not known	
Little, J. R.	San Francisco	Act of March 12, 1885		Aug. 24, 1885	287	San Francisco	May 10, 1893
Litton, C. A.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 13, 1890	Apr. 20, 1891	321	San Francisco	Aug. 17, 1894
Livemore, G. W.	Santa Barbara	Act of March 12, 1885		Sept. 2, 1885	328	Santa Barbara Co.	Oct. 27, 1885
Locke, C. W.	San Francisco	College of Dentistry, Univ. Cal.		Aug. 17, 1885	251	San Francisco	Nov. 29, 1886
Lockwood, A. T.	Madera	Examined by Board	July 10, 1890	July 12, 1890	132	San Francisco	Aug. 18, 1890
Lord, Mrs. C. B.	San Francisco	Act of March 12, 1885		Aug. 26, 1885	291	San Francisco	Nov. 29, 1886
Lord, F. F.	San Francisco	Act of March 12, 1885		Aug. 15, 1885	232	San Francisco	Nov. 29, 1886
Lord, C. C.	San Francisco	Act of March 12, 1885		Aug. 17, 1885	258	San Diego County	Feb. 5, 1887
Lovegrove, W. R.	San Francisco	College of Dentistry, Univ. Cal.	April 9, 1891	Apr. 22, 1891	147	San Francisco	Mar. 28, 1892
Lovejoy, G. E.	Petaluma	Act of March 12, 1885		Sept. 8, 1885	384	Sonoma County	
Lovejoy, F. E.	San Francisco	Act of March 12, 1885		Sept. 8, 1885	383	Not known	
Lowder, W. D.	Los Angeles	Examined by Board	Aug. 20, 1889	Aug. 22, 1889	100	Not known	
Lubbock, W. C.	Not known	Act of March 12, 1885		June 2, 1886	477	Not known	
Lucas, D. L.	Esparto	Indiana Dental College	Mar. 1, 1892	Sept. 12, 1885	453	Not known	
Luce, Geo. J.	San Francisco	Act of March 12, 1885		Sept. 12, 1885	399	Alameda County	Aug. 2, 1895
Ludlow, Wm. B., Jr.	Oakland	College of Dentistry, Univ. Cal.	June 13, 1895	June 15, 1895	113	Santa Cruz Co.	Aug. 15, 1886
Lundy, E. A.	Hong Kong	Act of March 12, 1885		July 18, 1885	431	San Francisco	Nov. 29, 1886
Lundborg, J. A. W.	San Francisco	Act of March 12, 1885		Sept. 11, 1885	507		
Lundborg, K. M.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	507		
Macdonald, A. E.	San Francisco	Act of March 12, 1885		Aug. 8, 1894	540		
MacDonald, Miss N. G.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	501		
MacMullan, D. A.	San José	Philadelphia Dental College	Feb. 26, 1891	Mar. 12, 1892	180	Not known	
Maldonado, E.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 29, 1887	Feb. 15, 1888	64	Not known	
Malech, T. G.	San Francisco	Act of March 12, 1885		Sept. 6, 1885	360	San Francisco	Nov. 29, 1886
Malone, A. F.	San Francisco	Baltimore College of Dental Surg.	—, 1867	Aug. 13, 1891	155	San Francisco Co.	Aug. 25, 1891
Manchester, M. R.	Redding	Act of March 12, 1885		Sept. 6, 1885	359	Not known	
Mancilla, M.	Not known	Act of March 12, 1885		Sept. 9, 1885	400	San Francisco	Nov. 29, 1886
Mann, J. C.	San José	Western College of Dental Surg.	Mar. 2, 1882	Nov. 2, 1891	174	Not known	
Marcoux, H. F.	Fresno	Chicago College of Dental Surg.	Mar. 31, 1886	Aug. 15, 1888	77	Not known	
Marsh, W. J.	Santa Maria	Examined by Board		Oct. 13, 1890	145	Santa Barbara Co.	Nov. 12, 1890

	Act of March 12, 1885	July 2, 1885	47	Tulare County	Sept. 16, 1885
Martin, Todd	Act of March 12, 1885	Aug. 3, 1885	185	Not known	Not known
Martin, S. D.	College of Dentistry, Univ. Cal.	Dec. 16, 1892	225	Alameda County	Dec. 24, 1892
Martin, William	Act of March 12, 1885	Mar. 1, 1882	332	San Francisco	Nov. 29, 1886
Massie, H. C.	Act of March 12, 1885	Aug. 15, 1885	238	Los Angeles	Aug. 15, 1885
Masser, W. H.	Act of March 12, 1885	June 5, 1890	122	San Francisco Co.	June 13, 1890
Matrone, C. F.	Ohio College of Dental Surgery	Mar. 3, 1886	38	San Diego County	Oct. 14
Matthews, E. S.	Ohio College of Dental Surgery	Mar. 2, 1887	329	San Francisco	Nov. 29, 1886
Matthews, J.	Act of March 12, 1885	Sept. 2, 1885	201	San Francisco	Nov. 29, 1886
Maunders, P.	Act of March 12, 1885	Aug. 7, 1885	206	Santa Clara Co.	Sept. 27, 1892
Maynard, C. C.	Examined by Board	Aug. 3, 1892	480	Not known	Not known
Maynard, S. A.	College of Dentistry, Univ. Cal.	June 18, 1896	163	Not known	Not known
McAbee, J. W.	Ohio College of Dentistry	Mar. 11, 1891	186	Not known	Not known
McBeath, F. V.	Philadelphia Dental College	Feb. 25, 1876	89	Contra Costa Co.	Oct. 26, 1885
McCabe, E.	Act of March 12, 1885	July 15, 1885	455	San Joaquin Co.	Jan. 24, 1896
McCann, F. A.	College of Dentistry, Univ. Cal.	June 13, 1885	117	Alameda County	April 1, 1890
McCarver, P.	College of Dentistry, Univ. Cal.	Dec. 6, 1890	226	San Francisco	Jan. 12, 1893
McCarger, Richard	College of Dentistry, Univ. Cal.	Nov. 13, 1890	290	Not known	Not known
McCarthy, J. P.	College of Dentistry, Univ. Cal.	Feb. 9, 1892	435	Los Angeles Co.	Aug. 22, 1894
McClay, John C.	Act of March 12, 1885	Sept. 11, 1885	333	San Bernardino	Sept. 13, 1885
McComb, V. J.	University of Maryland	Aug. 8, 1894	241	Mendocino Co.	May 1, 1894
McCowan, G.	Act of March 12, 1885	Aug. 15, 1885	82	Not known	Oct. 27, 1885
McDonald, G. W.	Baltimore College of Dental Surg.	Oct. 17, 1888	250	Butte County	Oct. 29, 1889
McElroy, Carolyn M.	Univ. Michigan, Dental Dept.	Mar. 10, 1887	513	San Francisco	Nov. 29, 1886
McFadden, A.	Act of March 12, 1885	June 26, 1890	34	San Francisco	Mar. 16, 1893
McFadigan, C. A.	Univ. Michigan, Dental Dept.	June 28, 1894	279	Sonoma County	Not known
McGraw, D. F.	Examined by Board	Aug. 20, 1889	78	Alameda County	Aug. 7, 1885
McIntyre, T. W.	Act of March 12, 1885	June 2, 1886	305	San Francisco	Nov. 29, 1885
McKenzie, A. W.	Act of March 12, 1885	Aug. 24, 1885	448	Tuolumne Co.	July 28, 1885
McKellops, H. L.	Missouri Dental College	Mar. 11, 1893	134	Not known	July 30, 1885
McLain, A. F.	Act of March 12, 1885	July 1, 1885	71	Not known	Mar. 22, 1893
McNutt, Robt. B.	College of Dentistry, Univ. Cal.	Aug. 5, 1896	256	Monterey County	Sept. 12, 1885
McQueen, J. S.	Chicago College of Dentistry	Aug. 1, 1893	396	Alameda County	Sept. 12, 1885
Meek, R. W.	Act of March 12, 1885	July 4, 1885	67	San Diego County	May 4
Meek, C. A.	College of Dentistry, Univ. Cal.	Feb. 9, 1892	115	San Joaquin Co.	Oct. 30, 1893
Mendes, C.	Act of March 12, 1885	Mar. 7, 1888	134	Sacramento Co.	May 1, 1890
Mendez, J. A.	Act of March 12, 1885	Mar. 9, 1893	134	Not known	Not known
Mendez, H.	Ohio College of Dental Surgery	Mar. 7, 1888	134	San Francisco	Nov. 29, 1885
Menges, M. A.	College of Dentistry, Univ. Cal.	Mar. 9, 1893	134	Tuolumne Co.	July 28, 1885
Merriman, A. F., Jr.	Act of March 12, 1885	Mar. 1, 1896	134	Not known	July 30, 1885
Merrill, A. P.	Philadelphia Dental College	Mar. 1, 1896	134	Not known	Mar. 22, 1893
Meseroll, J. M.	Act of March 12, 1885	Apr. 1, 1885	134	Monterey County	Sept. 12, 1885
Metcalf, F. H.	Boston Dental College	Apr. 1, 1885	134	Alameda County	Sept. 12, 1885

* Deceased. † Retired.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Meyer, Albert	San Francisco	Examined by Board	Aug. 10, 1894	Aug. 10, 1894.	356		
Meyer, W. A.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 12, 1889.	Aug. 13, 1891.	154	San Francisco	Sept. 10, 1891
Miles, A. D. E.	Stockton	College of Dentistry, Univ. Cal.	Feb. 9, 1892.	Oct. 11, 1892.	207	San Joaquin Co.	Dec. 7, 1892
Millard, G. A.	Compton	Act of March 12, 1885		Sept. 29, 1880	497	Not known	
Millar, R. F.	Alameda	College of Dentistry, Univ. Cal.	Feb. 9, 1892	Aug. 3, 1892.	190	Not known	
Miller, G. E.	San Francisco	Examined by Board	Aug. 10, 1894.	Aug. 10, 1894.	365		
Miller, G. A.	Fresno	Pennsylvania Dental College.	May 2, 1892.	Aug. 1, 1893.	271	Not known	
Miller, J. A.	Oakland	Kansas City Dental College.	Mar. 5, 1894	Apr. 20, 1894.	328	Not known	
Milliken, C. T.	Sacramento.	Dental Department, Univ. Penn.	May 1, 1885	Dec. 5, 1885.	14	Not known	
Milliken, H. L.	San Bernardino	Ohio College of Dental Surgery	Mar. 3, 1880.	Jan. 7, 1896	446		
Milberry, A. H.	San Francisco	Act of March 12, 1885		Aug. 24, 1885	262	Not known	
Mitchell, M. N.	Alturas	Act of March 12, 1885		Aug. 20, 1885	265	Mendocino Co.	Sept. 20, 1885
Mitchell, H. H.	Alturas	Act of March 12, 1885		Aug. 20, 1885	15	Mendocino Co.	Sept. 21, 1885
Moad, B. R.*	Modesto.	Act of March 12, 1885		June 23, 1885	435	Not known	
Moad, Mrs. S. R.	Santa Cruz.	Examined Aug. 6, 7, 8, 9		Aug. 9, 1893	266	Not known	
Mobley, W. A.	Oakland	College of Dentistry, Univ. Cal.	Nov. 12, 1889.	Aug. 3, 1893.	9-6	Not known	
Monroe, Geo.	Not known	Act of March 12, 1885		July 26, 1885	156	Not known	
Moody, Kate C.	Los Angeles	Dental Department, Univ. Mich.	Mar. 29, 1882.	Oct. 11, 1892.	213	Los Angeles Co.	May 4, 1893
Moody, J. D.	Los Angeles	Chicago College of Dental Surgery.	Mar. 27, 1885.	Mar. 11, 1893.	255	Los Angeles Co.	May 4, 1893
Moore, C.*		Act of March 12, 1885		Aug. 17, 1893.	250	San Francisco	Nov. 29, 1896
Moore, H. W.	Santa Barbara	Pennsylvania College of Dentistry	Mar. 1, 1867.	Nov. 5, 1886	30	Santa Barbara Co.	Nov. 12, 1890
Moore, J. E.	Marysville	Act of March 12, 1885		Sept. 13, 1887	509	Yuba County	Sept. 26, 1887
Moore, J. S.*		Baltimore Dental College.	Mar. 3, 1860.	Aug. 31, 1885	363	Contra Costa Co.	Sept. 13, 1885
Moore, J. S., Jr.	Benicia	Act of March 12, 1885		Sept. 8, 1885	376	Contra Costa Co.	Oct. 12, 1885
Moore, L. W.	San Francisco	Kansas City Dental College	Mar. 31, 1896.	Jan. 23, 1896	473		
Moore, R. I.	Honolulu	College of Dentistry, Univ. Cal.	Feb. 9, 1892.	Mar. 12, 1892.	187	Not known	
Moore, W. A.	Benicia	Act of March 12, 1885		Aug. 24, 1885	177	Solano County	Oct. 24, 1885
Morflow, Thomas	San Francisco	Act of March 12, 1885		July 13, 1885	213	San Francisco	Nov. 29, 1896
Mories, A. H.	Alameda	Act of March 12, 1885		Aug. 7, 1885	204	Alameda County	Aug. 12, 1885
Morris, Amiel	Woodland	College of Dentistry, Univ. Cal.	June 13, 1895.	Aug. 8, 1895	429	Yolo County	Nov. 26, 1895
Morris, R. W.	Los Angeles	Ohio College of Dental Surgery	Feb. 24, 1874.	May 7, 1888.	69	Los Angeles Co.	May 10, 1888
Morris, T. H.	San Francisco	Act of March 12, 1885		Aug. 29, 1885	321	Not known	
Morton, H. R., Sr.	San Francisco	Act of March 12, 1885		Aug. 17, 1885	260	San Francisco	Feb. 1, 1886
Morton, H. R., Jr.	San Francisco	Act of March 12, 1885		Sept. 6, 1885.	304	San Francisco	Nov. 29, 1885
Moulton, C. R.*		Act of March 12, 1885		Apr. 30, 1886.	468	Not known	
Moulton, H. G.	Guatemala	Examined by Board	Oct. 16, 1888	Oct. 18, 1888	79	Alameda County	Oct. 31, 1888
Musselman, S.	Cuamonga.	Act of March 12, 1885		Sept. 6, 1885	362	Not known	
Myers, O. P.	Madison	Act of March 12, 1885		Aug. 11, 1885	219	Yolo County	Aug. 11, 1885
Nash, Dorr.	San Francisco	Act of March 12, 1885		Oct. 23, 1885	498	San Francisco	Mar. 20, 1890
	San José	College of Dentistry, Univ. Cal.	Nov. 13, 1889.	Aug. 3, 1892.	203	Santa Clara Co.	Aug. 8, 1892

Nelson, W. H.	San Luis Obispo	Act of March 12, 1885	Feb. 29, 1884	Aug. 20, 1885	262	San Luis Obispo Co.	Jan. 2, 1886
Neumann, L.	San Francisco	Act of March 12, 1885	Feb. 29, 1884	Aug. 24, 1885	278	San Francisco	Nov. 29, 1886
News, G. F.	San José	Philadelphia Dental College	Feb. 29, 1884	Mar. 21, 1888	65	Santa Clara Co.	April 11, 1888
Newson, G. W.	Auburn	Examined by Board	Oct. 18, 1887	Oct. 25, 1887	49	Not known	---
Newton, S. D.	India	Examined by Board	Aug. 20, 1889	Aug. 22, 1889	98	Not known	---
Nichols, A. E.	Honolulu, H. I.	Missouri Dental College	Mar. 3, 1887	Oct. 25, 1887	42	Not known	---
Noble, H. D.	San Francisco	College of Dentistry, Univ. Cal.	Feb. 9, 1892	Oct. 11, 1892	210	San Francisco	Dec. 5, 1892
Norman, G. H.	Gridley	Act of March 12, 1885	Apr. 22, 1891	Aug. 15, 1885	235	Butte County	Oct. 27, 1885
Nye, W. E.	Healdsburg	Baltimore College of Dental Surgery	Apr. 22, 1889	Apr. 23, 1891	151	Sonoma County	Aug. 7, 1893
Oakley, J. W.	San Andreas	Royal College of Dental Surgery	June 13, 1895	Aug. 13, 1891	158	Not known	---
O'Connell, R. E.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895	Aug. 8, 1895	428	Humboldt Co.	Sept. 30, 1885
O'Connor, D. L.	Bloomsburg	Act of March 12, 1885	Aug. 1, 1893	Aug. 15, 1885	243	Not known	---
O'Connor, J. T.	Murphys	Examined by Board	Aug. 1, 1893	Aug. 4, 1893	300	Not known	---
O'Rourke, William	Oakland	College of Dentistry, Univ. Cal.	June 14, 1894	Dec. 21, 1894	317	Alameda County	June 18, 1895
Oviatt, S. M.	San Andreas	Act of March 12, 1885	June 14, 1894	Aug. 3, 1885	191	Calaveras County	June 2, 1886
Packard, C. W.	Riverside	Act of March 12, 1885	Mar. 1, 1889	Mar. 2, 1887	506	San Bernardino Co.	May 31, 1887
Pague, F. C.	San Francisco	Pennsylvania Col. of Dental Surg.	Mar. 1, 1889	Mar. 12, 1889	184	San Francisco Co.	Mar. 28, 1892
Palmer, A. H.	Pasadena	Pennsylvania Col. of Dental Surg.	Feb. 26, 1881	Oct. 15, 1889	109	Los Angeles Co.	Nov. 19, 1889
Palmer, F. M.	Los Angeles	Act of March 12, 1885	Feb. 26, 1881	Sept. 1, 1885	412	Not known	---
Pancost, F.	San Francisco	Act of March 12, 1885	Oct. 18, 1887	Feb. 1, 1887	505	Not known	---
Parker, C. H.	San Francisco	Examined by Board	Oct. 18, 1887	Oct. 25, 1887	51	San Francisco	Sept. 5, 1891
Parker, D. S.	West Fallbrook	Indiana Dental College	Feb. 23, 1882	Sept. 15, 1887	40	San Diego Co.	Dec. 23, 1885
Parker, Francis M.	Los Angeles	Vanderbilt Univ. Dental Dept.	Feb. 23, 1884	Apr. 27, 1889	93	Los Angeles	Jan. 21, 1893
Parker, J. P.	Santa Cruz	Philadelphia Dental College	Feb. 26, 1881	Dec. 19, 1887	54	Santa Cruz Co.	Dec. 1, 1887
Park, E. E.	San Francisco	Act of March 12, 1885	Feb. 25, 1882	July 26, 1885	152	San Francisco	Oct. 1, 1885
Par, F. F.	Delano	College of Dentistry, Univ. Cal.	Mar. 9, 1893	Aug. 1, 1893	276	Not known	---
Parson, P. M.	Oakland	Examined August 6, 7, 8, 9	Mar. 9, 1893	Aug. 9, 1895	439	Not known	---
Parsons, J. G.	San Diego	Indiana Dental College	Mar. 9, 1881	Nov. 2, 1891	176	San Diego Co.	May 4, 1892
Parsons, M. W.	San Francisco	Act of March 12, 1885	Mar. 17, 1892	Nov. 3, 1886	501	San Joaquin Co.	Dec. 1, 1886
Payne, C. S.	San Francisco	Univ. Maryland Dental Dept.	Mar. 17, 1892	Dec. 16, 1892	224	San Francisco Co.	Dec. 21, 1892
Payne, Eugene	San Francisco	College of Dentistry, Univ. Cal.	Nov. 29, 1887	June 5, 1890	123	San Francisco Co.	Oct. 22, 1891
Peake, Walter	Biarritz, France	Philadelphia Dental College	Feb. 27, 1880	Jan. 7, 1896	451	San Francisco Co.	---
Pearce, C. H.	Watsonville	College of Dentistry, Univ. Cal.	June 13, 1895	Aug. 8, 1895	430	Santa Cruz	Aug. 13, 1895
Pearce, C. L.	San Francisco	Act of March 12, 1885	Mar. 11, 1893	Mar. 11, 1893	533	San Francisco Co.	Mar. 25, 1893
Pearce, T. B.	San Francisco	Act of March 12, 1885	July 18, 1886	July 18, 1886	130	San Francisco Co.	Aug. 4, 1886
Pearce, B. F.	San Francisco	University of Michigan, Den. Dept.	June 28, 1894	Aug. 8, 1894	351	San Francisco	Aug. 24, 1894
Peel, Jonathan	San Francisco	Act of March 12, 1885	June 28, 1894	July 26, 1885	155	San Francisco	Nov. 29, 1885
Pendleton, B. F.	Vallejo	Act of March 12, 1885	June 28, 1894	June 20, 1885	86	Solano County	Oct. 24, 1885
Pennington, A. R.	Haywards	Act of March 12, 1885	Mar. 1, 1882	July 9, 1885	6	Alameda County	July 15, 1890
Peper, Wm.	San Diego	Philadelphia Dental College	Mar. 1, 1882	June 25, 1895	380	Alameda County	---
Pepper, C. F.	Los Angeles	Philadelphia Dental College	Mar. 7, 1895	June 13, 1895	389	Los Angeles Co.	July 26, 1895
Perkins, C. O.	Petaluma	Act of March 12, 1885	Aug. 13, 1885	Aug. 13, 1885	234	Sonoma County	Feb. 2, 1885
Perrault, J. T.	San Francisco	Act of March 12, 1885	Aug. 7, 1896	Aug. 7, 1896	544	San Francisco Co.	---
Perry, Charles A.	San Francisco	Act of March 12, 1885	Aug. 30, 1885	Aug. 30, 1885	271	San Francisco Co.	July 24, 1893

* Deceased.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Perry, E. E.	San Francisco	Philadelphia Dental College	Feb. 24, 1888.	Jan. 7, 1896	452	San Francisco	Feb. 24, 1896
Petton, L. D.	Oakland	Act of March 12, 1885		Aug. 7, 1885.	223	Alameda County	Jan. 28, 1886
Pfister, Joseph	Suisun	College of Dentistry, Univ. Cal.	Nov. 12, 1889.	Nov. 17, 1893.	311		
Phillips, F. H.	Hollister	College of Dentistry, Univ. Cal.	Dec. 23, 1891.	Aug. 3, 1892.	204	San Benito Co.	Dec. 21, 1892
Phillips, R. F.	San Diego.	Act of March 12, 1885	Feb. 25, 1872.	Sept. 11, 1885.	440	San Diego Co.	Oct. 26, 1885
Pierson, E. O.	San José	Examined August 4, 5, 6, 7.		Aug. 7, 1896.	517		
Pierson, H. H.	Sacramento.	Act of March 12, 1885		Sept. 11, 1885.	443	Not known	
Pinkey, M.	Willows	Act of March 12, 1885		Sept. 12, 1885.	463	Not known	
Pinkey, F. Z.	Colusa	University of Maryland, Den Dept.	Jan. 22, 1890	Feb. 6, 1890.	116	Colusa County	
Platt, F. L.	San Francisco	Philadelphia Dental College	Feb. 27, 1890	June 5, 1890.	124	San Francisco Co.	Sept. 30, 1890
Pless, F. G.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896.	503		
Ploss, H. T.	Pasadena	Pennsylvania Col. of Dental Surg.	Apr. 2, 1896	June 23, 1896.	471	Los Angeles	July 16, 1896
Plomteaux, H. J.	Oakland	Act of March 12, 1885		July 31, 1885.	173	Alameda County	Aug. 27, 1885
Pollock, J. H.	Out of State.	Ohio College of Dental Surgery	Mar. 12, 1890	Nov. 2, 1891.	173	Not known	
Poplin, R. L.	Santa Maria	Kansas City Dental College	Mar. 31, 1896.	Aug. 4, 1896.	475	Santa Barbara	Sept. 2, 1896
Porter, J. P., Sr.*	Truckee	Act of March 12, 1885		Sept. 8, 1885.	388	Not known	
Porter, W. S.	Reno, Nevada.	Act of March 12, 1885		Apr. 20, 1894.	538		
Porter, J. P., Jr.		Act of March 12, 1885		Sept. 8, 1885.	375	Not known	
Porter, J. M.	San Francisco	Ohio College of Dental Surgery	Mar. 2, 1870.	Aug. 3, 1892.	192	San Francisco	Aug. 24, 1892
Porter, L. C.	Napa	Act of March 12, 1885		Apr. 22, 1891.	527	Napa County	May 7, 1891
Porter, E. M.	Napa	Act of March 12, 1885		Sept. 8, 1885.	387	Napa County	Mar. 6, 1886
Porter, J. S.	San Francisco	Act of March 12, 1885		Aug. 17, 1885.	246	San Francisco	Nov. 29, 1886
Porterfield, R. H.	Smith River	College of Dentistry, Univ. Cal.	June 13, 1895	Sept. 13, 1895.	444		
Post, C. E.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 29, 1887.	Oct. 16, 1895.	110	San Francisco Co.	Oct. 30, 1889
Powell, Henry, Jr.	Haywards	College of Dentistry, Univ. Cal.	June 14, 1894.	Sept. 6, 1894.	369		
Powell, A. J.	Haywards	College of Dentistry, Univ. Cal.	Nov. —, 1889	June 5, 1890.	125	Alameda County	Jan. 10, 1893
Powell, A. A.	S. Haven, Mich.	Indiana Dental College.	Mar. 1, 1892	Aug. 1, 1893.	273	Los Angeles	Sept. 25, 1893
Powell, J. D.	Angels Camp	Philadelphia Dental College	Feb. 28, 1889.	Aug. 2, 1889.	106	San Francisco	Feb. 18, 1890
Powell, J. N.	San Francisco	Examined August 6, 7, 8, 9.		Aug. 9, 1895.	441		
Prather, W. J.	Fresno	Act of March 12, 1885		Aug. 20, 1885.	263	Fresno Co.	Feb. 9, 1886
Prather, W. R.	Merced	Act of March 12, 1885		Aug. 27, 1885.	305	Not known	
Pratt, F. E.	San Francisco	Act of March 12, 1885		Sept. 11, 1885.	430	San Francisco	Nov. 29, 1886
Pratt, E. W.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 12, 1889.	Nov. 17, 1893.	307		
Preshaw, R. G.	Oakdale	Act of March 12, 1885		July 2, 1885.	448	Solano Co.	June 15, 1885
Prey, Otto F.	San Francisco	College of Dentistry, Univ. Cal.	Apr. 21, 1890.	Jan. 7, 1896.	448		
Price, J. T.	San Jacinto.	Pennsylvania Col. of Dent. Surg.	Feb. 27, 1886.	May 7, 1888.	74	San Diego Co.	June 5, 1885
Price, W. E.	San Francisco	Act of March 12, 1885		July 26, 1885.	149	San Francisco	Nov. 29, 1886
Pring, E. J.	San Francisco	Examined by Board	Aug. 20, 1889	Aug. 22, 1889.	101	San Francisco	Sept. 13, 1889
Proctor, D. A.	Oakland	New York College of Dental Surg.	Apr. 15, 1895	June 13, 1895.	390	Alameda Co.	June 26, 1895
Proll, R. B.	San Francisco	Act of March 12, 1885		July 31, 1885.	167	San Francisco	July 31, 1885

Pugsley, S.	Not known.	Baltimore College of Dental Surg.	Mar. 10, 1887.	Oct. 17, 1888.	84	Not known.	Nov. 30, 1888
Purnell, G. E.	Not known.	Maryland Univ. Dental Dept.	Mar. 14, 1884.	Feb. 1, 1888.	59	Not known.	
Quick, E. P.	Santa Barbara	Pennsylvania Univ. Dental Dept.	May 1, 1886.	Nov. 12, 1888.	90	Santa Barbara Co.	
Quinn, E. A.	Manchester, N. H.	Boston Dental College.	June 15, 1892.	Aug. 4, 1896.	474	Alameda Co.	Sept. 10, 1885
Rabe, John	Oakland	Act of March 12, 1885.		Sept. 6, 1885.	336	Not known.	Nov. 29, 1886
Rainey, T. H.	San Jacinto	Examined by Board	Aug. 28, 1889.	Aug. 22, 1889.	103	San Francisco	Not known.
Ralls, R. F.	San Francisco	Act of March 12, 1885.		July 18, 1885.	119	Sonoma Co.	Nov. 29, 1886
Rankin, J. H.	Santa Rosa	Act of March 12, 1885.		Sept. 6, 1885.	354	San Francisco	Not known.
Raw, Henry*	Arcata	Act of March 12, 1885.		Aug. 7, 1885.	202	Humboldt Co.	May 1, 1888
Ray, C. B.	San Francisco	Act of March 12, 1885.		July 18, 1885.	120	San Francisco	Nov. 29, 1886
Rea, C. T.	Lincoln	Act of March 12, 1885.		July 31, 1885.	169	Not known.	
Rea, John	San Diego	Act of March 12, 1885.		Aug. 15, 1885.	236	Butte County.	Oct. 27, 1885
Read, W. S.	San Diego	Examined Aug. 6, 7, 8, 9		Aug. 29, 1885.	17		
Read, Emma G.	Arcata	College of Dentistry, Univ. Cal.	Nov. 13, 1890.	Nov. 17, 1893.	438	Humboldt Co.	Nov. 29, 1893
Redmond, J. M.	Arcata	Act of March 12, 1885.		Nov. 17, 1893.	310	Humboldt Co.	May 1, 1888
Redmond, J. J.	Santa Rosa	Act of March 12, 1885.		July 23, 1885.	138	Sonoma County.	Not known.
Reed, C. W.	Pomona	Missouri Dental College	Mar. 10, 1876.	July 1, 1885.	283	Los Angeles Co.	June 28, 1893
Reed, A. R.	Leesville	Dental Dept. Univ. Maryland.	Mar. 16, 1893.	Mar. 11, 1893.	253	Not known.	
Reese, John S.	Sacramento.	Act of March 12, 1885.		Aug. 1, 1893.	270	Sacramento Co.	Aug. 27, 1885
Reid, T. B.	Sacramento.	Northwestern University.	Apr. 24, 1894.	Aug. 7, 1894.	349	Not known.	
Reid, H. E.	Sacramento.	College of Dentistry, Univ. Cal.	Dec. 3, 1886.	Aug. 13, 1891.	167	Nevada County.	Aug. 12, 1885
Reith, W. C.	Grass Valley	Act of March 12, 1885.		July 2, 1885.	46	Not known.	
Relley, John W.	Yreka	Minn. Hospital Dental College	Feb. 26, 1886.	Nov. 26, 1886.	34	Stanislaus County	Aug. 8, 1892
Remington, C. L.	Modesto	Act of March 12, 1885.		July 1, 1885.	41	Not known.	
Remington, J. W.	Los Angeles	Philadelphia Dental College	Mar. 5, 1896.	June 23, 1896.	466	Not known.	
Rendall, R. S.	Pasadena	College of Dentistry, Univ. Penn.	May 1, 1890.	Jan. 23, 1894.	318	Not known.	
Requa, H. D.	Santa Ana	Examined by Board	Aug. 1, 1893.	Aug. 4, 1893.	298	Not known.	
Reynolds, P. R.	San José	Act of March 12, 1885.		Aug. 26, 1885.	294	Not known.	
Rhodes, S. R.	Azusa	Penn. College of Dental Surgery.	Feb. 28, 1890.	Oct. 13, 1890.	144	Not known.	
Rice, E. V.	San Francisco	Act of March 12, 1885.		Sept. 8, 1885.	391	San Francisco	Nov. 29, 1886
Richards, C. W.	Stockton	Act of March 12, 1885.		Sept. 8, 1885.	369	San Luis Obispo Co.	
Richards, W. A.	San Francisco	College of Dentistry, Univ. Cal.	Feb. 9, 1892.	Mar. 11, 1893.	248	San Francisco	Mar. 21, 1893
Richards, H. G.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896.	Aug. 5, 1896.	479	Not known.	
Richards, J. T.	San Francisco	Penn. College of Dental Surgery.	Feb. 25, 1875.	June 18, 1887.	37	Not known.	Nov. 29, 1886
Richey, W. S.	San Luis Obispo	Act of March 12, 1885.		Aug. 26, 1885.	267	San Francisco	Jan. 29, 1886
Rietzke, G. C.	San Francisco	Act of March 12, 1885.		Aug. 29, 1885.	366	San Francisco	
Rinebold, J. J.	Not known.	Act of March 12, 1885.		Aug. 10, 1894.	359	San Francisco	Nov. 29, 1886
Roberts, D. E.	Murphys	Examined by Board	Aug. 10, 1894.	Aug. 10, 1894.	437	San Francisco	
Roberts, S. H.	San Francisco	Act of March 12, 1885.		Sept. 11, 1885.	527	San Francisco	Aug. 9, 1893
Roberts, H. J.	San Francisco	Examined Aug. 4, 5, 6, 7		Aug. 7, 1896.	322	San Francisco	
Robertson, John.	San Francisco	Examined by Board	Aug. 1, 1893.	Aug. 4, 1893.	297	Not known.	
Robinson, F. A.	Nevada City	Act of March 12, 1885.		Aug. 27, 1885.	298	San Francisco	Nov. 29, 1886
Robinson, W. H.	San Francisco	Act of March 12, 1885.		Sept. 10, 1885.	420	San Francisco	
Roche, H. N.	San Francisco	Examined Aug. 4, 5, 6, 7		Aug. 7, 1896.	320	San Francisco	

* Deceased. † Retired.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Rodden, G. F.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 29, 1887.	Aug. 13, 1891.	162	Not known	---
Rodolph, G. W.	Oakland	College of Dentistry, Univ. Cal.	Nov. 29, 1887.	June 9, 1894.	333	Alameda County	Dec. 21, 1885
Rodolph, C. T.	Oakland	Act of March 12, 1885.	---	July 26, 1885.	150	Santa Clara Co.	Aug. 29, 1885
Rogers, E. P.	Gilroy	Act of March 12, 1885.	---	---	230	Not known	---
Rogers, F. S.	Gilroy	Act of March 12, 1885.	---	Sept. 11, 1885.	438	Not known	---
Rone, C. E.	Los Angeles	College of Dentistry, Univ. Penn.	May 1, 1889.	Jan. 7, 1893.	453	---	---
Rout, W. A.	St. Helena	Act of March 12, 1885.	---	June 2, 1886.	479	Not known	---
Rose, F. N.	Belvedere	Examined Aug. 6, 7, 8, 9	---	Aug. 9, 1893.	440	---	---
Rosenthal, Wm. M.	Los Angeles	Philadelphia Dental College	Feb. 24, 1888.	Jan. 7, 1896.	454	---	---
Ross, C. G.	Riverside	Penn. College of Dental Surgery	Feb. 28, 1874	Feb. 1, 1888.	60	Not known	---
Roth, L. J.	Los Angeles	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896.	504	Los Angeles	1896
Rowand, J. T.	San Francisco	Penn. College of Dental Surgery	Feb. 26, 1887.	June 15, 1887.	39	Not known	---
Rubell, W. H.	San Francisco	Act of March 12, 1885.	---	Sept. 29, 1886.	493	Not known	---
Sabin, C. R.	San Francisco	Act of March 12, 1885	---	Sept. 2, 1885.	324	Not known	---
Salmon, William	San Rafael	Act of March 12, 1885	---	Sept. 1, 1885.	413	San Francisco	Nov. 29, 1886
Sand, Joseph A.	San Francisco	College of Dentistry, Univ. Cal.	Dec. 3, 1886	Aug. 3, 1893.	284	Not known	---
Sanderson, A. L.	San Francisco	Univ. Denver, Col. of Dentistry	April 3, 1889.	Aug. 13, 1891.	166	Not known	---
Sanford, L. N.	San Francisco	Act of March 12, 1885	---	July 1, 1885.	42	San Francisco	Nov. 29, 1886
Sanger, I.	Not known	Act of March 12, 1885	---	July 31, 1885.	163	San Francisco	Nov. 29, 1886
Saul, G. M.	San Francisco	Act of March 12, 1885	---	Sept. 10, 1885.	426	Not known	---
Saul, O. M.	San Francisco	Kansas City Dental College	Mar. 1, 1895	Aug. 8, 1895.	424	---	---
Savage, F. L.	Livermore	Examined by Board	Aug. 10, 1894.	Aug. 10, 1894.	367	---	---
Savage, C. W.	San Rosa	Act of March 12, 1885	---	July 31, 1885.	177	Sonoma County	1885
Savage, S. L.	Livermore	Act of March 12, 1885	---	Sept. 12, 1885.	455	Not known	---
Savage, Henry.	San Francisco	Act of March 12, 1885	---	July 1, 1885.	38	San Francisco	Nov. 29, 1886
Sawhill, F.	San Diego	Indiana Dental College	Feb. 28, 1882	Aug. 3, 1892.	189	San Diego Co.	Oct. 1, 1892
Sawyer, Anna M.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896.	482	---	---
Sawyer, F. E.	San Rafael	College of Dentistry, Univ. Cal.	June 13, 1895	June 15, 1895.	413	---	---
Saxby, J. B.	Santa Barbara	Baltimore College of Dentistry	Mar. 1, 1896	June 23, 1896.	472	Santa Barbara	June 29, 1896
Saxe, F. J.	Oakland	College of Dentistry, Univ. Cal.	Nov. 10, 1885	Mar. 13, 1886	20	Alameda County	Jan. 5, 1893
Schiffman, A. F.	Los Angeles	Examined by Board	Aug. 10, 1894.	Aug. 10, 1894.	355	Los Angeles Co.	Aug. 29, 1894
Schlott, E. F.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 9, 1893.	Mar. 11, 1893.	228	San Francisco Co.	April 12, 1892
Schmidt, G. L.	Oakland	Act of March 12, 1885	---	Sept. 10, 1885.	422	Alameda County	Sept. 10, 1885
Schneider, Joe	Mexico	Act of March 12, 1885	---	Aug. 29, 1885	316	Not known	---
Schoemaker, R. H.	Pasadena	Act of March 12, 1885	---	Nov. 5, 1886.	502	Not known	---
Schoemaker, F.	San José	College of Dentistry, Univ. Cal.	Mar. 9, 1893.	Mar. 11, 1893.	230	Not known	---
Schumer, A. C.	Ukiah	Act of March 12, 1885	---	Sept. 12, 1885.	454	Alameda County	Sept. 17, 1885
Schultze, E. H.	San Francisco	Act of March 12, 1885	---	Mar. 13, 1886.	457	San Francisco Co.	Mar. 13, 1886
Schwartzschild, F.	San Francisco	Act of March 12, 1885	---	Jan. 18, 1887.	504	Not known	---
Scott, W. K.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 9, 1893.	Mar. 11, 1893.	232	San Francisco	May 24, 1893

Seager, H. L.	San Francisco	College of Dentistry, Univ. Cal.	Feb. 9, 1892.	Mar. 11, 1893.	244	Not known	Not known	1885
Sehorn, W. A.	Willows	Act of March 12, 1885.	June 7, 1894	June 30, 1894	27	Tehama County	Tehama County	Sept. 3, 1894
Seibel, P. H.	San Francisco	Pennsylvania Univ. Col. Dent.	June 7, 1894	Aug. 8, 1894	350	San Francisco	San Francisco	Aug. 9, 1893
Semler, Ludwig	Los Angeles	Philadelphia Dental College.	1879	Aug. 1, 1893	269	Los Angeles	Los Angeles	
Shankey, W. G.	San Francisco	College of Dentistry, Univ. Cal.	Dec. 4, 1888	Aug. 4, 1893	289	Not known	Not known	
Sharp, W. F.	San Francisco	Harvard College of Dentistry	June 24, 1891	Mar. 11, 1893	177	San Francisco	San Francisco	Mar. 14, 1893
Sharp, J. G.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 9, 1893	Sept. 2, 1893	329	San Francisco	San Francisco	Mar. 14, 1893
Shaw, J. T.	Vallejo	Act of March 12, 1885		Sept. 11, 1885	325	Solano	Solano	Oct. 24, 1885
Shaw, H. H.	San Francisco	Examined by Board	July 10, 1890	July 12, 1890	126	San Francisco	San Francisco	Oct. 16, 1890
Shaw, I. G.	Sacramento.	Act of March 12, 1885		Aug. 3, 1885	190	Sacramento.	Sacramento.	May 19, 1893
Shepard, E. P.	Not known	Act of March 12, 1885		Apr. 22, 1891	528	Not known	Not known	
Shepard, H. M.	San Francisco	Pennsylvania College Dent. Surg.	Feb. 28, 1878	Apr. 22, 1891	313	Not known	Not known	
Shepard, S. B.	San Francisco	Act of March 12, 1885		Apr. 22, 1891	529	Not known	Not known	
Sherman, W. B.	San Francisco	Philadelphia Dental College	Feb. 25, 1892	Aug. 3, 1892	198	Not known	Not known	
Sherriff, E. W.	San Francisco	Indiana Dental College	Jan. 4, 1890	Feb. 6, 1890	112	San Diego Co.	San Diego Co.	May 6, 1890
Shields, F. M.	Sacramento.	Act of March 12, 1885		Aug. 20, 1885	269	Sacramento Co.	Sacramento Co.	Oct. 1, 1890
Shoaff, W. R.	San Francisco	Examined by Board	June 10, 1890	June 12, 1890	129	San Francisco Co.	San Francisco Co.	Nov. 26, 1886
Shrewsbury, N.*	San Francisco	Act of March 12, 1885		Sept. 20, 1886	492	Santa Barbara Co.	Santa Barbara Co.	Mar. 17, 1893
Shuey, G. E.	East Oakland	College of Dentistry, Univ. Cal.	Nov. 29, 1887.	Mar. 11, 1893	246	Alameda County	Alameda County	Nov. 29, 1886
Sichel, Max	San Francisco	Act of March 12, 1885		Aug. 3, 1885	188	San Francisco	San Francisco	
Sichel, G. W.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 8, 1882	Nov. 24, 1885	2	Not known	Not known	
Sichel, L.	San Francisco	College of Dentistry, Univ. Cal.	June 13, 1895	June 15, 1895	398	San Francisco	San Francisco	Sept. 11, 1895
Siebert, W. H.	San Francisco	University Michigan, Dent. Dept.	June 26, 1890	Nov. 2, 1891	168	San Francisco Co.	San Francisco Co.	May 24, 1893
Sheets, H. C.*	San Francisco	Act of March 12, 1885		July 15, 1885	107	Not known	Not known	Nov. 20, 1886
Short, E. N.	San Francisco	College of Dentistry, Univ. Cal.	Jan. 8, 1889	Aug. 29, 1885	308	San Francisco	San Francisco	Nov. 20, 1886
Simms, C. W. H.	Oakland	Act of March 12, 1885		Aug. 2, 1885	402	Not known	Not known	
Simmons, B. F.	San Francisco	College of Dentistry, Univ. Cal.	Dec. 3, 1886	Sept. 9, 1885	309	Santa Barbara Co.	Santa Barbara Co.	Sept. 7, 1889
Simpson, G. W.	Santa Barbara	Examined by Board	Aug. 20, 1889	Nov. 17, 1893	99			
Simpson, Jennie M.	San Francisco	College of Dentistry, Univ. Cal.	Aug. 29, 1887.	Aug. 8, 1895	434			
Singleton, W. E.	San Francisco	College of Dentistry, Univ. Cal.	Nov. 13, 1895	Aug. 15, 1895	412	San Francisco	San Francisco	Oct. 1, 1895
Sloan, J. H.	Ventura	Examined by Board	July 10, 1890	July 12, 1890	133	Ventura County	Ventura County	Aug. 12, 1890
Sloat, C. F.	San Francisco	Act of March 12, 1885		Aug. 7, 1885	214	San Francisco Co.	San Francisco Co.	Nov. 20, 1886
Small, J. L.	Placerville	University of Iowa Dental Dept.	Sept. 29, 1890.	Oct. 13, 1890	137	El Dorado Co.	El Dorado Co.	Jan. 30, 1891
Small, H. E.	Los Angeles	Act of March 12, 1885		Apr. 30, 1886	469	Not known	Not known	
Smith, F. J.	San Jose	College of Dentistry, Univ. Cal.	June 18, 1896	Apr. 5, 1896	483			
Smith, F. H.	San Luis Obispo	Univ. of Maryland, Col. Dentistry	Mar. 16, 1894.	June 15, 1895	395			
Smith, C. D.	Angels Camp	Act of March 12, 1885		July 23, 1885	141	Calaveras County	Calaveras County	Mar. 16, 1889
Smith, W. A.	Los Angeles	Univ. Penn. College of Dentistry	May 1, 1885.	Aug. 1, 1893	282	Not known	Not known	
Smith, W. C.	Pasadena	University of Buffalo	May 2, 1893.	Aug. 8, 1894	354			
Smith, J. F.	Forest Hill.	Act of March 12, 1885.		July 7, 1885	64	Not known	Not known	
Smith, F. Z.	Fresno	Act of March 12, 1885.		Aug. 29, 1885	315	Presno County	Presno County	Feb. 18, 1891
Smith, F. G.	Santa Cruz	Philadelphia College of Dentistry.	Oct. 8, 1890	Oct. 13, 1890	142	Santa Clara Co.	Santa Clara Co.	Jan. 9, 1885
Smith, J. B. M.*		Act of March 12, 1885		July 2, 1885.	49	Not known	Not known	

* Deceased.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Smith, M. E.	San Francisco	Act of March 12, 1885	-----	Sept. 6, 1885	358	San Francisco Co.	Sept. 6, 1885
Smith, U.	Stockton	Act of March 12, 1885	-----	Aug. 7, 1885	213	Not known.	-----
Southworth, E. L.	Sacramento	Univ. Penn. College of Dentistry	May 1, 1885	Dec. 5, 1885	15	Sacramento Co.	-----
Southworth, S. S.	Sacramento	Act of March 12, 1885	-----	Sept. 12, 1885	462	Sacramento Co.	-----
Sparks, A. E.	Alameda	University of Maryland	Mar. 22, 1891	Sept. 6, 1894	372	-----	-----
Sparreroohn, H. R.	Los Angeles	Examined by Board	Aug. 10, 1894	Aug. 10, 1894	360	Los Angeles	Aug. 27, 1894
Spaw, C. R.	-----	Act of March 12, 1885	-----	Aug. 29, 1885	310	Santa Clara Co.	Oct. 2, 1885
Spear, T. R.	San Francisco	Act of March 12, 1885	-----	Sept. 9, 1885	403	San Francisco	Nov. 2, 1886
Spence, S. J.	Not known	Act of March 12, 1885	-----	July 31, 1885	166	Not known.	-----
Spinks, M. E.	Los Angeles	Act of March 12, 1885	-----	Sept. 29, 1886	491	Los Angeles Co.	Sept. 27, 1886
Spinks, W. H.	Los Angeles	Dent. Dept. Southern Med. Col.	Feb. 29, 1892	Aug. 1, 1893	280	Not known.	-----
Sprake, W. T.	San José	Act of March 12, 1885	-----	Sept. 9, 1885	353	Not known.	-----
Spratt, C. W.	Not known	Act of March 12, 1885	-----	June 23, 1885	5	Trinity County	Aug. 14, 1885
Staire H. M.	Ventura	Baltimore College of Dental Surg.	Feb. 20, 1890	Nov. 5, 1886	135	Ventura County	Aug. 12, 1890
Staire, J. M.	Ventura	Baltimore College of Dental Surg.	Mar. 11, 1885	Nov. 5, 1886	29	Ventura County	Aug. 24, 1888
Stall, B. F.	Sacramento	Act of March 12, 1885	-----	Apr. 18, 1889	518	Sacramento Co.	-----
Stallman, George E.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Aug. 5, 1896	485	San Francisco Co.	July 8, 1885
Stanley, W. H.	San Francisco	College of Dentistry, Univ. Cal.	-----	June 23, 1885	22	Solano County	Oct. 24, 1885
Stanton, J. C.	Rio Vista	Act of March 12, 1885	-----	July 23, 1885	140	Santa Barbara Co.	Sept. 10, 1885
Stauffer, A. W.	Santa Barbara	Act of March 12, 1885	-----	Sept. 2, 1885	327	-----	-----
Steele, Dan L.	San Francisco	Act of March 12, 1885	-----	Aug. 9, 1885	542	-----	-----
Stephens, H. H.	San Francisco	Act of March 12, 1885	-----	Sept. 2, 1885	206	San Francisco	Nov. 29, 1886
Stephenson, C. H.	Sacramento	Act of March 12, 1885	-----	Aug. 7, 1885	406	Not known.	-----
Stephenson, Harley H.	Sacramento	College of Dentistry, Univ. Cal.	June 13, 1895	Sept. 9, 1885	425	-----	-----
Stevens, C.	Los Angeles	Act of March 12, 1885	-----	Aug. 8, 1885	245	Not known	-----
Stevens, F. E.	Los Angeles	Act of March 12, 1885	-----	Aug. 17, 1885	290	Not known	-----
Stevens, A. J.	Los Angeles	Examined by Board	Aug. 1, 1893	Aug. 26, 1885	292	Not known	-----
Stewart, R.	Chico	New York College of Dentistry	Mar. 10, 1886	Aug. 4, 1893	32	Colusa County	-----
Stich, Beni. M.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896	Nov. 26, 1886	498	-----	-----
Stickel, J. L.	San Francisco	Philadelphia Dental College	Feb. 25, 1887	Aug. 5, 1896	91	Santa Cruz Co.	Apr. 27, 1889
Stinson, C. G.	Carpinteria	Chicago College of Dent. Surg.	Apr. 30, 1894	Oct. 27, 1889	374	Santa Barbara	Dec. 24, 1894
Stokes, F. C.	San Leandro	Act of March 12, 1885	-----	Oct. 8, 1894	270	Not known	-----
Stone, J. T.	Petaluma	Act of March 12, 1885	-----	Aug. 20, 1885	270	Not known	-----
Stone, W. W.	Placerville	Act of March 12, 1885	-----	Aug. 7, 1885	209	Not known	-----
Strickland, S. L.	San Francisco	Act of March 12, 1885	-----	July 1, 1885	32	El Dorado Co.	Oct. 27, 1885
Stuart, S. L.	Ventura	Louisville College of Dentistry	June 21, 1892	Oct. 11, 1892	211	San Francisco Co.	Oct. 19, 1892
Stuttmeister, W. O.	Redwood City	College of Dentistry, Univ. Cal.	Dec. 3, 1886	Oct. 31, 1885	182	Not known.	-----
Sublett, W. A.	San Francisco	Act of March 12, 1885	-----	Apr. 20, 1894	330	-----	-----
Suggett, A. H.	Marysville	College of Dentistry, Univ. Cal.	Mar. 9, 1893	Sept. 12, 1895	459	San Francisco	Nov. 29, 1886
Sullivan, H. F.	Oakland	College of Dentistry, Univ. Cal.	Mar. 9, 1893	Mar. 11, 1893	227	Not known	-----
		College of Dentistry, Univ. Cal.	Mar. 9, 1893	June 14, 1893	261	Alameda County	Dec. 11, 1893

Sullivan, J. P.	Not known	Act of March 12, 1885	July 31, 1885	183	San Francisco Co.	Aug. 11, 1885
Sullivan, M. J.	San Francisco	Act of March 12, 1885	June 30, 1885	23	San Francisco	Nov. 20, 1886
Summers, R. A.	Oakland	Examined by Board	Aug. 4, 1893	291	Not known	Aug. 3, 1885
Swain, E. M.	San Francisco	Act of March 12, 1885	Aug. 3, 1885	193	San Francisco Co.	
Swain, Robert	San Francisco	Pennsylvania College Dental Sur.	Jan. 23, 1894	316		
Swain, H. P.	Los Angeles	Act of March 12, 1885	Aug. 17, 1885	247	Not known	
Swartwout, L. D.	Los Angeles	Examined by Board	Aug. 10, 1894	364	Los Angeles	Aug. 24, 1894
Swift, T. F.	Not known	Philadelphia College of Dentistry	May 7, 1888	68	Not known	
Sylvester, Anna	San Francisco	Act of March 12, 1885	Sept. 10, 1885	423	San Francisco	Nov. 29, 1886
Sylvester, C. W.	Riverside	College of Dentistry, Univ. Cal.	Dec. 16, 1892	221	San Francisco	Dec. 23, 1893
Sylvester, H. J.	San Francisco	Act of March 12, 1885	June 23, 1885	14	San Bernardino Co.	July 6, 1885
Symmons, S. J.	Oakland	Examined Aug. 4, 5, 6, 7	Sept. 6, 1885	355	San Francisco	Nov. 29, 1886
Taber, M. E.	San Bernardino	Missouri Dental College	Aug. 7, 1896	514		
Taggart, D. R.	Tulare	Missouri Dental College	Feb. 6, 1890	111	Not known	
Taggart, John E.	Burlington, Vt.	Univ. Maryland, Dent. Dept.	Oct. 11, 1892	214	Not known	
Tate, S. P., Jr.	Oakland	Act of March 12, 1885	Mar. 13, 1884	465	Not known	
Taylor, F. S.	Los Angeles	Ohio College of Dental Surgery	Apr. 2, 1895	416	Not known	
Taylor, J. M.	Alturas	Act of March 12, 1885	July 9, 1885	82	Los Angeles Co.	April 15, 1896
Taylor, R. L.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 9, 1893	242	Not known	
Taylor, W. J.	Sacramento	College of Dentistry, Univ. Cal.	June 14, 1894	338	Not known	
Taylor, W. E.	Oakland	College of Dentistry, Univ. Cal.	Mar. 11, 1893	229	Sacramento	July 5, 1894
Teague, L. A.	San Francisco	Act of March 12, 1885	Sept. 11, 1885	445	Not known	
Teague, F.	San Francisco	Act of March 12, 1885	Sept. 11, 1885	439	San Francisco	Nov. 29, 1886
Tebbetts, F. F.	Sacramento	Act of March 12, 1885	Aug. 7, 1885	210	Not known	
Theller, E. A.	Philadelphia	Penn. College of Dental Surgery	June 23, 1896	472	Sacramento Co.	Jan. 4, 1893
Thomas, A. J.	Sacramento	Act of March 12, 1885	Oct. 13, 1890	523	Sacramento Co.	Jan. 10, 1893
Thomas, H. B.	San Rafael	Act of March 12, 1885	July 13, 1885	97	Not known	
Thomas, C. L.	Escondido	Chicago College of Dentistry	Sept. 6, 1894	370	San Diego Co.	Sept. 21, 1894
Thomas, Montgomery	Fresno	College of Dentistry, Univ. Cal.	Aug. 5, 1896	511	Fresno	Sept. 4, 1896
Thompson, R. P.	Ferndale	Act of March 12, 1885	July 26, 1885	153	Humboldt Co.	May 28, 1887
Thraikell, William O.	Not known	Act of March 12, 1885	Sept. 10, 1885	424	San Francisco	Nov. 29, 1886
Thrall, H. H.	San Francisco	Act of March 12, 1885	Aug. 24, 1885	284	Not known	
Tibbetts, A. L.	Petaluma	College of Dentistry, Univ. Cal.	June 15, 1895	402	Sonoma Co.	Aug. 5, 1895
Timmerman, E. C.	Oakland	University of Penn. Dent. Dept.	Mar. 14, 1879	75	Alameda County	Nov. 20, 1888
Timmons, A. J.	Yreka	University of Penn. Dent. Dept.	Feb. 3, 1891	149	Siskiyou County	May 3, 1893
Titcomb, C. B.	San Francisco	Act of March 12, 1885	Aug. 26, 1885	293	Alameda County	Sept. 12, 1885
Tobriner, Oscar	San Francisco	College of Dentistry, Univ. Cal.	Aug. 5, 1896	476	Not known	
Todd, Baxter	Out of State	Act of March 12, 1885	July 18, 1885	132	Not known	
Todd, C.	Sacramento	College of Dentistry, Univ. Cal.	Aug. 5, 1896	487	Not known	
Todd, R. A.	Out of State	University of Penn. Dent. Dept.	June 18, 1896	36	Not known	
Tolhurst, G. W.	Los Angeles	Act of March 12, 1885	June 15, 1887	96	Not known	
Tolhurst, S. H.	Los Angeles	Act of March 12, 1885	July 15, 1885	95	Los Angeles Co.	Jan. 18, 1893
Tope, John H.	Not known	Act of March 12, 1885	Sept. 8, 1885	390	Not known	

* Deceased.

Walker, C. H.	Oakland	Examined by Board	Oct. 16, 1888.	Nov. 12, 1888.	87	Alameda County	Nov. 14, 1888
Walker, J. T.	Hansonville	Act of March 12, 1885.	Mar. —, 1896.	Sept. 8, 1885.	367	Not known.	Not known.
Wall, A. C.	San Francisco	Baltimore College of Dentistry.	Feb. 28, 1878.	June 23, 1896.	469	San Joaquin Co.	Sept. 9, 1885
Wallace, W. G.	Stockton	Act of March 12, 1885.	Nov. 13, 1890.	July 7, 1885.	67	San Francisco	April 16, 1895
Wallace, A. H.	San Francisco	College of Dentistry, Univ. Cal.	Apr. 2, 1895.	Aug. 9, 1895.	386	Not known.	Oct. 27, 1885
Walsh, R. L.	San Francisco	Ohio College of Dental Surgery	Aug. 15, 1885.	Aug. 3, 1885.	437	Butte Co.	Not known.
Walton, S. L.	San José	Examined Aug. 6, 7, 8, 9	Oct. 18, 1887.	Oct. 25, 1887.	192	Placer County	Nov. 29, 1886
Waltz, G. W.*	Oakland	Act of March 12, 1885.	June 18, 1896.	Aug. 5, 1896.	497	San Francisco	Not known.
Ward, S. T.*	Auburn	Act of March 12, 1885.	Mar. 4, 1889.	Mar. 31, 1887.	507	Not known.	Oct. 27, 1885
Ward, J. N.	San Francisco	Examined by Board	Mar. 10, 1870.	July 7, 1885.	54	Butte County	Not known.
Ware, Wm. H.	San Francisco	College of Dentistry, Univ. Cal.	Feb. 20, 1889.	Sept. 4, 1885.	338	Not known.	Not known.
Warner, A.	San Francisco	Act of March 12, 1885.	June 13, 1895.	June 15, 1895.	409	San Francisco	July 9, 1895
Warner, John	Not known	Act of March 12, 1885.	Mar. 4, 1889.	June 15, 1895.	394	San Diego	July 24, 1895
Wasler, W. A.†	San Francisco	Act of March 12, 1885.	June 18, 1896.	Apr. 22, 1891.	524	Santa Clara Co.	May 21, 1891
Wasley, D. W.	Chico	Act of March 12, 1885.	June 18, 1896.	Aug. 5, 1896.	481	Santa Clara Co.	Sept. 14, 1896
Wasson, J. B.	San Diego	New Orleans Dental College.	June 13, 1895.	Aug. 5, 1896.	489	Humboldt County	Oct. 31, 1885
Wasson, J. C.	San José	Vanderbilt Dental College.	Mar. 4, 1889.	Sept. 8, 1885.	386	Humboldt County	Sept. 30, 1885
Wassman, Max	Los Angeles	Act of March 12, 1885.	Dec. 4, 1888.	July 23, 1885.	137	Not known.	Not known.
Watman, E. R.	San Francisco	College of Dentistry, Univ. Cal.	Aug. 1, 1893.	Mar. 11, 1893.	295	Not known.	Not known.
Watts, L. W.	San Diego	College of Dentistry, Univ. Cal.	June 18, 1896.	Sept. 12, 1895.	465	Not known.	Not known.
Weaver, C. R.	Gilroy	Act of March 12, 1885.	June 18, 1896.	Aug. 5, 1896.	484	Not known.	Not known.
Webster, L. D.	San José	College of Dentistry, Univ. Cal.	June 18, 1896.	Sept. 16, 1893.	303	Not known.	Not known.
Weldon, C. A.	San Francisco	College of Dentistry, Univ. Cal.	June 18, 1896.	Aug. 3, 1892.	191	Stanislaus County	Aug. 3, 1892
Weldon, E. J.	Eureka	Act of March 12, 1885.	Feb. 9, 1892.	Sept. 6, 1895.	352	Santa Clara Co.	Sept. 6, 1895
Wells, J. A.	Sacramento	Act of March 12, 1885.	June 13, 1895.	Oct. 16, 1889.	108	Santa Barbara Co.	Nov. 15, 1889
Wells, L. W.	Los Angeles	Act of March 12, 1885.	June 19, 1889.	Aug. 7, 1885.	218	Los Angeles Co.	Jan. 19, 1886
Weston, C. S.	Oakland	College of Dentistry, Univ. Cal.	Mar. 23, 1891.	Nov. 10, 1887.	514	Not known.	Not known.
Weston, W. H.	Los Angeles	Examined by Board	Mar. 23, 1891.	Sept. 11, 1885.	448	San Francisco	Nov. 20, 1886
Westover, G. C.*	San Francisco	Act of March 12, 1885.	Mar. 23, 1891.	Aug. 3, 1885.	186	San Bernardino Co.	Sept. 12, 1891
Westphal, E. W.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 23, 1891.	Aug. 8, 1885.	421	Orange Co.	Aug. 12, 1895
Westphal, O. F.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 23, 1891.	Aug. 10, 1894.	168	Not known.	Sept. 22, 1894
Weyer, G. A.	Modesto	College of Dentistry, Univ. Cal.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
Whipple, T. S.*	San José	Act of March 12, 1885.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
White, F. H.*	San Francisco	College of Dentistry, Univ. Cal.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
White, G. A.	Santa Barbara	Boston Dental College.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
White, J. M.	Los Angeles	Act of March 12, 1885.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
White, J. R.	Not known	Act of March 12, 1885.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
Whitcomb, N. T.	San Francisco	Act of March 12, 1885.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
Whitnack, C. A.	Salinas	Chicago College of Dental Surgery.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
Whitlock, Alma	Santa Ana	Act of March 12, 1885.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
Whitted, Chas.	Los Angeles	Indiana Dental College.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
Whomes, R. W.	San Bernardino	Examined by Board	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
Wilcox, J. L.*	Los Angeles	Act of March 12, 1885.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894
Wilcox, W. I.	San Francisco	College of Dentistry, Univ. Cal.	Mar. 23, 1891.	June 22, 1894.	336	San Francisco	Sept. 22, 1894

† Name changed to August Van Crom by Superior Court, San Francisco, July 22, 1889.

* Deceased. † Retired.

REGISTER OF LICENSED DENTAL PRACTITIONERS—Continued.

Name.	Place of Practice.	Qualification.	Dated.	Certificate Issued.	No.	Recorded.	Date.
Wilder, D. R.	Los Angeles	Act of March 12, 1885.	-----	Apr. 30, 1886.	470	Los Angeles Co.	May 4, 1886
Wiley, J. N.	Santa Rosa	Act of March 12, 1885.	-----	July 1, 1886.	36	Sonoma County	----- 1885
Willard, S. S.	Los Angeles	Philadelphia Dental College	Feb. 28, 1883.	Apr. 12, 1895.	382	-----	-----
Williams, V. A.	Cloverdale	Univ. Michigan, Dental Dept.	June 29, 1893	Aug. 4, 1893	288	Not known	-----
Willsey, T. F.	Covelo	Act of March 12, 1885.	-----	Aug. 17, 1885.	249	Not known	-----
Wilson, C. H.	San Francisco	Act of March 12, 1885.	-----	July 23, 1885.	139	San Francisco	Nov. 29, 1886
Wilson, W. C.	Not known	Act of March 12, 1885.	-----	July 31, 1885.	164	Yolo County	Aug. 25, 1885
Wilson, O. T.	Oakland	Act of March 12, 1885.	-----	Aug. 11, 1885	227	Alameda County	Sept. 7, 1885
Wilson, M. W.	Dutch Flat	Act of March 12, 1885.	-----	Aug. 27, 1885	303	Placer County	Aug. 15, 1893
Winter, J. W.	San Francisco	Act of March 12, 1885.	-----	July 7, 1885.	58	San Francisco	Nov. 29, 1886
Winter, W. G.*	Not known	Philadelphia Dental College	Feb. 27, 1877.	Dec. 8, 1885.	17	Not known	-----
Wood, A. B.	Modesto	College of Dentistry, Univ. Cal.	June 14, 1894.	July 31, 1885.	170	Not known	-----
Wood, C. C.*	Sacramento	Act of March 12, 1885.	-----	June 22, 1894.	346	Sacramento Co.	June 9, 1893
Worrall, G. H.	Santa Clara	Univ. Penn., Dental Department.	Mar. 16, 1881	June 30, 1885	283	Santa Clara Co.	April 1, 1892
Wyatt, M. O.	Winters	Act of March 12, 1885.	-----	Mar. 12, 1892.	53	Yolo County	Dec. 3, 1891
Yant, H.	San José	Western Dental College	Mar. 10, 1892.	July 7, 1885	419	Santa Clara	Aug. 13, 1895
Yates, L. G.	Santa Barbara	Act of March 12, 1885.	-----	Aug. 8, 1895	52	Santa Barbara Co.	Oct. 27, 1885
Young, J. E.	Mill Valley	Act of March 12, 1885.	-----	July 7, 1885	12	Not known	-----
Young, H. G.	San Francisco	Act of March 12, 1885.	-----	June 29, 1885.	12	Not known	-----
Young, J. A.	San Diego	Examined by Board	-----	Sept. 9, 1885.	407	-----	-----
Younger, W. J.	San Francisco	Act of March 12, 1885.	Oct. 18, 1887.	Oct. 25, 1887	460	San Diego County	July 25, 1888
Younger, E. A.	San Francisco	Act of March 12, 1885.	-----	July 26, 1885.	161	San Francisco	Nov. 29, 1886
Zeigler, C. L.	San Francisco	Philadelphia Dental College	Feb. 26, 1891.	July 26, 1885.	160	Not known	Nov. 29, 1886
				Aug. 13, 1891.	160		

* Deceased.

RECAPITULATION BY COUNTIES.

The Board, realizing that this list, as well as the one just given, may contain, under the circumstances, some inaccuracies, takes this method of correction, and asks any one who may discover any error to forward the correction to the Secretary at once.

Alameda County.

Abbey, Wm. H., Oakland.	Jewell, W. S., Oakland.
Allen, R. H., East Oakland.	Kenworthy, L., San Leandro.
Barradas, F. C., San Leandro.	Knox, H. E., Oakland.
Bauske, A. E., Oakland.	Koehler, Frank, Sunol.
Bishop, M. N., Alameda.	Lane, C. S., Oakland.
Boyes, H. D., Oakland.	Lewis, W. F., Oakland.
Brooks, W. E., Oakland.	Ludlow, Wm. B., Jr., Oakland.
Carpenter, O., Oakland.	McCargar, P., Oakland.
Chappel, H. G., Oakland.	Meek, R. W., Oakland.
Clazie, F., Oakland.	Merriman, A. F., Sr., Oakland.
Collins, M. J., Oakland.	Merriman, A. F., Jr., Oakland.
Cool, R. H., Oakland.	Mille, J. A., Oakland.
Corwin, Cecil, Oakland.	Mobley, W. G., Oakland.
Cornwall, A. F., Oakland.	Mories, A. H., Alameda.
Craig, Marian W., Oakland.	O'Rourke, Wm., Oakland.
Craig, W. H., Oakland.	Parson, P. M., Oakland.
Cross, W. W., Oakland.	Pelton, L. D., Oakland.
Cummings, Elizabeth, Berkley.	Pennington, A. R., Haywards.
Cummings, Maria E., Berkeley.	Plomteaux, H. J., Oakland.
Davidson, J. E., Oakland.	Powell, A. J., Haywards.
Dimmick, Joseph, Oakland.	Powell, Henry, Jr., Haywards.
Dow, Edgar L., Oakland.	Proctor, D. A., Oakland.
Dunn, John M., Oakland.	Rodolph, C. T., Oakland.
Dunn, R. K., Oakland.	Rodolph, George W., Oakland.
Edwards, B. F., Oakland.	Savage, F. L., Livermore.
Engs, John S., Oakland.	Savage, S. L., Livermore.
Everts, Charles P., Oakland.	Saxe, F. J., Oakland.
Fare, John, Oakland.	Schmidt, G. L., Oakland.
Farmer, E. W., Oakland.	Shuey, G. E., East Oakland.
Fisher, F. H., Oakland.	Simmons, W. H., Oakland.
Gilman, S. M., Oakland.	Sparks, A. E., Alameda.
Gilstrap, J. M., Oakland.	Stoaks, F. C., San Leandro.
Griffiths, Allen, Oakland.	Sullivan, H. F., Oakland.
Hackett, S. A., Oakland.	Summers, R. A., Oakland.
Halsey, W. H., Oakland.	Symmons, S. J., Oakland.
Hall, T. W., Oakland.	Tate, S., Jr., Oakland.
Heider, W. T., Oakland.	Taylor, W. E., Oakland.
Hempstead, J. E., Oakland.	Timerman, E. E., Oakland.
Humphrey, John G., Alameda.	Walker, C. H., Oakland.
Hutton, J. A. D., Berkeley.	Weston, C. S., Oakland.
Jacobs, F. O., Oakland.	Wilson, O. F., Oakland.

Amador County.

Gray, John, Ione.	Herrick, C. A., Jackson.
Gabbs, E. S., Sutter Creek.	La Due, W. K., Plymouth.

Butte County.

Goodearle, J. H., Oroville.
 Meek, C. A., Chico.
 Norman, George H., Gridley.

Stewart, Robert, Chico.
 Wasley, D. W., Chico.

Calaveras County.

Beals, C. H., San Andreas.
 Oakley, J. W., San Andreas.
 Oviatt, S. M., San Andreas.
 O'Connor, J. T., Murphys.

Powell, J. D., Angels Camp.
 Roberts, D. E., Murphys.
 Smith, C. D., Angels Camp.

Colusa County.

Ciley, J. L., Little Stony.
 Holloway, E. S., College City.

Pirkey, F. Z., Colusa.
 Rees, J. S., Leesville.

Contra Costa County.

Briggs, W. H., Brentwood.
 Brooks, F. S., Martinez.

Elliott, D. C., Concord.
 Hale, R. L., Martinez.

Del Norte County.

Beacom, Charles W., Crescent City.

Porterfield, R. H., Smith River.

El Dorado County.

Small, J. L., Placerville.
 Stone, W. W., Placerville.

Tyson, Charles, Placerville.
 Walk, C. L., Placerville.

Fresno County.

Brewer, F. A., Fresno.
 Cockrill, R. B., Fresno.
 Cooper, J. C., Fresno.
 Cory, B. B., Fresno.
 Couch, Fred L., Selma.
 Doyle, B. W., Fresno.
 Earl, George W., Selma.

Fox, G. L., Fresno.
 Hunsaker, A. L., Fresno.
 Marcoux, H. F., Fresno.
 Miller, G. A., Fresno.
 Prather, W. J., Fresno.
 Smith, F. Z., Fresno.
 Thomas, Montgomery, Fresno.

Glenn County.

Abrams, George, Willows.
 Pirkey, M., Willows.

Sehorn, W. A., Willows.

Humboldt County.

Beverton, D. W., Eureka.
 Cook, W. E., Eureka.
 Dungan, G. A., Eureka.
 Gates, Mrs. I. M., Eureka.
 Ingersoll, A. E., Eureka.
 Johnston, Robert, Eureka.

O'Connor, D. L., Blocksburg.
 Ray, C. B., Arcata.
 Redmond, J. M., Arcata.
 Redmond, J. J., Arcata.
 Thompson, R. P., Ferndale.
 Weldon, E. J., Eureka.

Inyo County.

McQueen, John S., Bishop.

Kern County.

Bethel, F. J., Bakersfield.

Parr, E. F., Delano.

Kings County.

Bray, G. F. I., Hanford.
 Cameron, A. D., Hanford.

Hendricks, H. T., Hanford.

Lake County.

Gardiner, Thomas, Lakeport.
Griner, O. T., Lakeport.

McAbee, J. W., Lakeport.

Lassen County.

Head, W. W., Susanville.

Leonard, J. G., Susanville.

Los Angeles County.

Adams, S. H., Los Angeles.
Allin, Ernest, Los Angeles.
Arbeely, H. J., Monrovia.
Bacon, A. A., Los Angeles.
Baldwin, C. V. Los Angeles.
Bird, W. R., Los Angeles.
Blair, C. L., Los Angeles.
Bourne, R. R., Los Angeles.
Broadbeck, H. W., Los Angeles.
Brown, E. P., Los Angeles.
Bryan, A. C., Pomona.
Buell, Harry C., Los Angeles.
Burgess, R. F., Los Angeles.
Burleson, F. D., Pomona.
Calder, H. F., Los Angeles.
Case, I. M., Pomona.
Cowan, E. L., Los Angeles.
Crawford, J. S., Los Angeles.
Cronkhite, J. A., Los Angeles.
Cunningham, F. R., Los Angeles.
Cunningham, R. G., Los Angeles.
Deffenbacher, D. S., Los Angeles.
Dunn, J. H., Pomona.
Ford, Lewis E., Los Angeles.
French, L. W., Los Angeles.
Fuellgräff, A. W. E., Los Angeles.
Gleaves, A. D., Los Angeles.
Gothard, J. T., Pomona.
Hammell, Annie, Los Angeles.
Hays, A. P., Los Angeles.
Hendricks, Peter, Los Angeles.
Hollingsworth, M. W., Los Angeles.
Hollingsworth, J. W., Los Angeles.
Howard, Edwin G., Los Angeles.
Hubbell, A. B., Los Angeles.
Hughawout, H. C., Los Angeles.
Hurt, J. M., Pomona.
Janes, R. K., Los Angeles.
Kennedy, A. S., Los Angeles.
Kennedy, W. F., Los Angeles.
King, J. J., Los Angeles.
Knepper, G., Los Angeles.
Kuns, C. A., Los Angeles.
LaForce, Jos. E., Los Angeles.
Little, F. F., Pomona.
Lowder, W. D., Los Angeles.
McBeath, F. V., Los Angeles.

Millard, G. A., Compton.
Moody, Kate C., Los Angeles.
Moody, J. D., Los Angeles.
Morris, R. W., Los Angeles.
Palmer, A. H., Pasadena.
Palmer, F. M., Los Angeles.
Parker, Francis M., Los Angeles.
Pepper, Chas. F., Los Angeles.
Pless, H. T., Pasadena.
Reed, A. R., Pomona.
Rendall, R. S., Los Angeles.
Requa, H. D., Pasadena.
Rice, E. V. Azusa.
Rone, C. E., Los Angeles.
Rosenthal, Wm. M., Los Angeles.
Roth, Leon J., Los Angeles.
Schiffman, A. F., Los Angeles.
Semler, Ludwig, Los Angeles.
Shoemaker, R. H., Pasadena.
Small, H. E., Los Angeles.
Smith, W. A., Los Angeles.
Smith, W. C., Pasadena.
Sparrevohn, H. R., Los Angeles.
Swartwout, L. D., Los Angeles.
Spinks, M. E., Los Angeles.
Spinks, W. H., Los Angeles.
Stephens, C., Los Angeles.
Stephens, F. E., Los Angeles.
Stevens, A. J., Los Angeles.
Taylor, F. S., Los Angeles.
Tolhurst, G. W., Los Angeles.
Tolhurst, S. H., Los Angeles.
Townsend, Jessie R., Pasadena.
Townsend, E. L., Los Angeles.
Treen, Robert, de G., Pasadena.
Truesdell, Ed. C., Los Angeles.
Tudor, J. P., Los Angeles.
Urmy, H. N., Los Angeles.
Viall, George, Pasadena.
Wassman, Max, Los Angeles.
Wells, L. W., Los Angeles.
Weston, W. H., Los Angeles.
White, J. M., Los Angeles.
Wilder, D. R., Los Angeles.
Willard, S. S., Los Angeles.
Whomes, R. W., Los Angeles.

Madera County.

Lockwood, A. T., Madera.

Marin County.

Fitch, O. P., San Rafael.	Sawyer, F. E., San Rafael.
McElroy, Carolyn M., San Quentin.	Thomas, H. B., San Rafael.
Rose, F. N., Belvedere.	Young, J. E., Mill Valley.
Salmon, Wm., San Rafael.	

Mendocino County.

Boys, H. S., Ukiah.	Hogshead, W. H., Ukiah.
Case, Edwin G., Ukiah.	Holmes, C. A., Mendocino City.
Copsey, A. N., Mendocino City.	McCowan, Geo., Ukiah.
Copsey, H. B., Ukiah.	Schumer, A. C., Ukiah.
Higgins, C. P., Fort Bragg.	Willsey, T. F., Covelo.

Merced County.

Hyde, A. T., Merced.	King, J. F., Merced.
Hyde, C. G., Merced.	Prather, W. R., Merced.

Modoc County.

Camicia, L. S., Lookout.	Mitchell, M. N., Alturas.
Crow, Samuel H., Cedarville.	Mitchell, H. H., Alturas.
Hutchins, J. M., Alturas.	Taylor, J. M., Alturas.

Monterey County.

Cummings, C. H., Pacific Grove	Meredith, George H., Salinas.
Horner, J. Van C., Pacific Grove.	Whitenack, C. A., Salinas.
Lemon, G. B., Salinas.	

Napa County.

Carr, G. B., St. Helena.	Hackett, C. C., Napa.
Davis, C. E., St. Helena.	Porter, L. C., Napa.
Edmonds, Marion J., Napa.	Porter, E. M., Napa.
Farman, C. H., Napa.	Root, W. A., St. Helena.

Nevada County.

Archer, Ira B., North San Juan.	Lancaster, C. E., North San Juan.
Bowman, I. L., Nevada City.	Martin, S. D., Nevada City.
Chapman, C. W., Nevada City.	McIntyre, T. W., Nevada City.
Chapman, Mrs. N. E., Nevada City.	Porter, W. S., Truckee.
Harris, M. P., Grass Valley.	Relley, John W., Grass Valley.
Harris, George M., North San Juan.	Robinson, F. A., Nevada City.
Hays, I. W., Jr., Grass Valley.	

Orange County.

Coffin, A. M., Santa Ana.	Menges, M. A., Santa Ana.
DeVore, W. G., Santa Ana.	Reynolds, P. R., Santa Ana.
Garnett, W. M., Santa Ana.	Whitted, Charles, Santa Ana.
McCoy, John C., Santa Ana.	

Placer County.

Hawver, J. C., Auburn.	Smith, J. F., Forest Hill.
Newson, G. W., Auburn.	Ward, J. N., Auburn.
Rea, John, Lincoln.	Wilson, M. N., Dutch Flat.

Plumas County.

Cate, David B., Quincy.	Ford, A. J., Quincy.
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Riverside County.

Derby, A. J., Riverside.	Price, J. T., San Jacinto.
Edmiston, B. T., San Jacinto.	Rainey, T. H., San Jacinto.
Howe, E. B., Riverside.	Ross, C. G., Riverside.
Pachard, C. W., Riverside.	Sylvester, C. W., Riverside.

Sacramento County.

Bates, B. F., Folsom.	Shields, F. M., Sacramento.
Deuel, Ernest C., Sacramento.	Southworth, E. L., Sacramento.
Forbes, W. W., Sacramento.	Southworth, S. S., Sacramento.
Gardiner, Edmund, Sacramento.	Stephenson, C. H., Sacramento.
Girardey, W. O., Sacramento.	Stephenson, H. H., Sacramento.
Kestler, F. S., Sacramento.	Stoll, B. F., Sacramento.
Larkin, Geo. W., Sacramento.	Taylor, W. J., Sacramento.
Metcalf, F. H., Sacramento.	Tebbetts, F. F., Sacramento.
Milliken, C. T., Sacramento.	Thomas, A. J., Sacramento.
Pierson, H. H., Sacramento.	Todd, Clifford, Sacramento.
Reid, T. B., Sacramento.	Wait, R. L., Sacramento.
Reid, H. E., Sacramento.	Weldon, J. A., Sacramento.
Reith, W. C., Sacramento.	Wood, Wm., Sacramento.
Shaw, I. G., Sacramento.	

San Benito County.

Hendricks, J. D., Hollister.	Sandford, L. N., Hollister.
Phillips, F. H., Hollister.	

San Bernardino County.

Bedford, L. N., San Bernardino.	Milliken, H. L., San Bernardino.
Bogart, S. C., San Bernardino.	Musselman, S., Cucamonga.
Hart, O. P., San Bernardino.	Taber, M. E., San Bernardino.
Hatcher, S. H., Ontario.	Tremper, R. H., Ontario.
McComb, V. J., Colton.	Whitlock, Alma, San Bernardino.

San Diego County.

Barnes, F. J., San Diego.	Merrill, A. P., San Diego.
Cave, D., San Diego.	Parker, D. S., West Fallbrook.
Cogswell, Thomas, San Diego.	Parsons, J. G., San Diego.
Coomes, F. E., San Diego.	Peper, Wm., San Diego.
Gildea, B. M., San Diego.	Philips, R. F., San Diego.
Gould, H. W., San Diego.	Read, W. S., San Diego.
Grove, L. H., San Diego.	Read, Emma T., San Diego.
Hall, W. H., Otay.	Sawhill, F., San Diego.
Harbison, H. R., San Diego.	Sheriff, E. W., San Diego.
Hooker, A. H., San Diego.	Thomas, C. L., Escondido.
Hurd, E. L., San Diego.	Wasson, J. B., San Diego.
Leonard, C. N., San Diego.	Watts, L. W., San Diego.
Lord, C. C., San Diego.	Young, J. A., San Diego.
Matthews, E. S., San Diego.	

San Francisco County.

Abrahm, Henry	Beers, B.	Botsford, Geo.
Ashworth, F. P.	Bell, C. H.	Borger, J. M.
Atwood, Wm. A.	Bernard, H. A.	Boulton, Thos.
Axton, F. R.	Blake, C. A.	Boxton, Chas.
Backman, G. S.	Blake, C. E., Sr.	Boyd, S. A.
Bar Due, W. N.	Blankman, Wm.	Brewer, B. B.
Barrett, T. F.	Bliss, F. A.	Brooks, F. A.
Bauer, Chas. F.	Boeseke, B. C.	Brown, C. D.

San Francisco County—Continued.

Brown, A. V.	Ferguson, T. H.	King, W. Z.
Brun, L. E.	Fitzgibbon, Jas. G.	Knowles, W. A.
Burfiend, W. M. H.	Fitzpatrick, W. E.	Knowles, S. E.
Burns, O. B.	Fletcher, Thomas	Knowlton, J. S.
Bush, C. G.	Flood, A. M.	Lane, F. J.
Bush, F. J. H.	Forrest, J. M.	Lawrence, George O.
Bush, Louis	Frazer, T. J.	Lawton, W. J. P.
Cafferata, A.	Fuller, C. H.	Lee, L. A.
Cahill, S. D.	Gabbs, M. F.	Leek, I. G.
Cane, Alfred	Gambetz, M. R.	Leek, G. W.
Card, W. H.	Gardner, Robert C.	Levkowicz, M. W.
Carlton, H. P.	Garrison, D. R.	Likens, J. W.
Chapman, Ira H.	Gedge, H. E.	Little, G. B.
Chapman, S. A.	Gibson, F. W.	Little, J. R.
Chalfant, S. P.	Gibson, J. A.	Litton, C. A.
Christensen, G. A.	Goddard, C. L.	Lock, C. W.
Clark, W. H.	Goe, S. E.	Lord, F. F.
Clark, T. N.	Gore, Arthur	Lovegrove, W. R.
Cochrane, E. O.	Gorton, C. D.	Lovejoy, F. E.
Cogswell, J. L.	Gray, R. F.	Luce, George J.
Coney, D. M.	Graham, G. F.	Lundborg, J. A. W.
Conradt, J. H.	Greenbaum, L.	Lundborg, K. M.
Cook, Israel	Greenlaw, M. A.	Macdonald, A. E.
Cool, W. P.	Guisti, J. J.	Maldonado, E.
Coulson, N. T.	Gunzburger, B. M.	Malech, T. G.
Cragie, H.	Hackett, F. M.	Malone, A. F.
Cranz, F. H.	Haines, B. W.	Massie, H. C.
Cranz, L. T.	Halstead, E. P.	Mattern, C. F.
Croome, Wm.	Hardcastle, Geo.	McCann, F. A.
Crum, T. A.	Harrison, E. L.	McCarthy, J. P.
Cummings, Jude E.	Hart, A. C.	McCarger, R.
Cunningham, S. J.	Harth, A. P.	McDonald, Miss N. G.
Curragh, J. M.	Haslehurst, A. O.	McFadgen, A.
Cutler, R.	Hatch, J. H.	McKellops, H. L.
Danziger, G. A.	Hauselt, C. P.	McKenzie, A. W.
Davidson, Robert	Hawley, A. H.	McNutt, Robt. B.
Davis, H. C.	Hibbard, C. W.	Meyer, Albert
Davis, W. E.	Hill, A. S.	Meyer, W. A.
Dean, G. S.	Hill, A. L.	Millberry, A. H.
Dean, C. O.	Hill, T. L.	Miller, G. E.
Decker, C. W.	Hilliard, S. W.	Moore, W. L.
Deichmiller, C.	Hipkins, H.	Morffew, Thos.
Dennis, S. W.	Hodgen, J. D.	Morris, T. H.
Dennis, Cecil C.	Hofleng, Fred.	Morton, H. R., Sr.
Derby, A. T.	Hubbard, Geo. A.	Morton, H. R., Jr.
Dodson, E. M.	Hultberg, F. L.	Myers, O. P.
Dorhman, W. F.	Husted, Guy B.	Neumann, L.
Dowling, Jerome	Hutchinson, J. E.	Noble, H. D.
Drucker, G. I.	Iglehardt, Thos. N.	O'Connell, R. E.
Duckett, C. S.	Jacobs, D. R.	Pague, F. C.
Dunbar, L. L.	Jeffrey, Jos. A.	Pancoast, F.
Dunn, M. J.	Jenkins, O. G.	Park, E. E.
Eddy, E. D.	Johnston, J. H.	Parker, C. H.
Edwards, J. W.	Kauffman, L. H.	Payne, C. S.
Eisen, E. G.	Kemp, Van Ee, Fred.	Pearce, B. F.
Emerson, E. W.	Key, J. W.	Pearce, C. L.
Erhardt, P. C.	Key, T. B.	Pearce, T. B.
Ewing, F. L.	King, L. A.	Peel, Jonathan

San Francisco County—Continued.

Perrault, J. T.	Schwarzschild, F.	Teague, L. A.
Perry, C. A.	Scott, W. K.	Teague, Fred.
Perry, E. E.	Seager, H. L.	Titcomb, C. B.
Platt, F. L.	Seibel, P. H.	Tobriner, Oscar
Pless, F. G.	Shankey, W. G.	Treyer, E. J.
Porter, J. M.	Sharp, W. F.	Trueman, H. G.
Porter, J. S.	Sharp, J. G.	Trumpour, J. P.
Post, C. E.	Shaw, H. H.	Tufts, J. B.
Powell, Jas. N.	Sheppard, H. M.	Twist, J. F.
Pratt, E. W.	Sherman, W. B.	VanCrombrughe, A.*
Pratt, F. E.	Short, E. N.	Vanderlip, J. T.
Price, W. E.	Sichel, G. W.	Vanderlip, G. G.
Prey, O. F.	Sichel, Leo	Van Orden, L.
Proll, R. B.	Sichel, Max	Van Orden, G. N.
Ralls, R. F.	Sieberst, W. H.	Varrinder, R. T.
Rea, C. T.	Simmons, B. F.	Vogel, T. A.
Reitzke, Gustav	Simms, C.	Vidaver, N. J.
Richards, C. W.	Simpson, Jennie M.	Wachhorst, N. B.
Richards, H. G.	Singleton, W. E.	Wall, A. C.
Richards, J. T.	Sloat, C. F.	Wallace, A. H.
Roberts, H. G.	Smith, M. E.	Walsh, R. L.
Roberts, S. H.	Spear, T. R.	Ware, Wm. H.
Robertson, John	Stallman, Geo. E.	Warner, A.
Robinson, W. H.	Stanley, W. H.	Waterman, E. R.
Roche, H. N.	Steele, Dan L.	Weldon, C. A.
Rodden, G. F.	Stephens, H. H.	Westphal, E. W.
Rowand, J. T.	Stich, B. M.	Westphal, O. F.
Sabin, C. R.	Stickel, J. L.	Whitcomb, N. T.
Sand, J. A.	Strickland, S. L.	Wilcox, W. I.
Sanderson, A. L.	Sublett, W. A.	Wilson, C. H.
Saul, G. M.	Sullivan, M. J.	Winter, J. W.
Saul, O. M.	Swain, Robert	Young, H. G.
Savage, Henry	Swain, E. M.	Younger, W. J.
Sawyer, Anna M.	Sylvester, A. J.	Younger, E. A.
Schlott, E. F.	Sylvester, H., Jr.	Zeigler, C. L.
Schultze, E. H.	Taylor, R. L.	

San Joaquin County.

Baird, E. E., Lodi.	Glidden, M. D., Stockton.
Blackwell, B. G., Lodi.	Henderson, W. R., Stockton.
Blodgett, John M., Lodi.	Henderson, R. W., Stockton.
Bonham, C. A., Stockton.	Meseroll, J. M., Stockton.
Burton, Frank, Stockton.	Miles, A. D. E., Stockton.
Davenport, A. C., Stockton.	Smith, U., Stockton.
Fickett, S. H., Stockton.	Turner, P. T., Stockton.
Galbreath, A. J., Stockton.	Wallace, W. G., Stockton.

San Luis Obispo County.

Brown, W. G., San Luis Obispo.	Nelson, W. H., San Luis Obispo.
Garrison, D. M., San Luis Obispo.	Rickey, W. S., San Luis Obispo.
Griffith, A. C., Paso Robles.	Smith, F. H., San Luis Obispo.

San Mateo County.

Ducker, J. H., San Mateo.	Stuttmier, W. O., San Mateo.
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* Name changed to Van Crom, A.

Santa Barbara County.

Chappell, McCoy, Lompoc.	Poplin, R. L., Santa Maria.
Child, Mrs. M. M., Santa Barbara.	Quick, E. P., Santa Barbara.
Dimock, H. C., Lompoc.	Saxby, J. B., Santa Barbara.
Edmonds, J. H., Santa Barbara.	Simpson, G. W., Santa Barbara.
Ketcham, E. T., Santa Maria.	Stauffer, H. W., Santa Barbara.
Lee, D. B., Santa Barbara.	Stinson, C. G., Carpinteria.
Livermore, G. W., Santa Barbara.	White, G. A., Santa Barbara.
Marsh, W. J., Santa Maria.	Yates, L. G., Santa Barbara.
Moore, W. H., Santa Barbara.	

Santa Clara County.

Argall, Frank, San José.	Ledyard, F. K., San José.
Asay, J. L., San José.	MacMullan, D. A., San José.
Avery, C. N., San José.	Mann, J. C., San José.
Barker, A. M., San José.	Maynard, C. C., San José.
Bennett, A. G., Jr., San José.	Maynard, S. A., San José.
Brigham, K. A., Gilroy.	McGraw, D. F., San José.
Davy, John W., San José.	McGettigan, Charles A., San José.
De Crow, Warren, San José.	Nash, Dorr, San José.
Edwards, C. O., San José.	Nevins, G. F., San José.
Finnegan, L., San José.	Pieper, E. O., San José.
Fisher, Mrs. Minnie, San José.	Rhodes, S. R., San José.
Fleming, C. K., San José.	Rogers, E. P., Gilroy.
Fowler, A. A., Evergreen.	Rogers, F. S., Gilroy.
Frazer, I. A., San José.	Schumacher, F., San José.
Gallup, Thomas E., Santa Clara.	Smith, F. J., San José.
Gaston, W. A., San José.	Sprake, W. F., San José.
Gaston, A. A., San José.	Walton, S. L., San José.
Gray, G. W., San José.	Wasson, J. C., San José.
Hall, E. C., San José.	Weaver, C. R., Gilroy.
Holmes, Stephen, San José.	Webster, L. D., San José.
Hooker, A. O., San José.	Worrall, G. H., Santa Clara.
Husted, F. R., San José.	Yant, H., San José.
Klein, N., San José.	

Santa Cruz County.

Alger, E. J., Santa Cruz.	Hitchcock, J. W., Watsonville.
Bliss, C. L., Santa Cruz.	Kirkpatrick, H. C., Santa Cruz.
Bliss, F. W., Santa Cruz.	McCabe, E., Watsonville.
Bonham, J. F., Watsonville.	Moad, Mrs. Susie R., Santa Cruz.
Butterfield, C. L., Watsonville.	Parker, J. P., Santa Cruz.
Clark, Wm. N., Watsonville.	Pearce, C. H., Watsonville.
Gordon, O. L., Santa Cruz.	Smith, E. G., Santa Cruz.

Shasta County.

Fuller, F. N., Redding.	Hartman, W. P., Shasta City.
Grotefind, Geo., Redding.	Manchester, M. R., Redding.

Sierra County.

Douglas, G., Downieville.

Siskiyou County.

Boyd, E. J., Yreka.	Remington, C. L., Yreka.
Hearn, F. G., Yreka.	Timmons, A. J., Yreka.
Larison, C. A., Yreka.	

Solano County.

Armstrong, J. J., Vallejo.
 Charles, M. S., Suisun.
 English, W. P., Vacaville.
 Millar, R. F., Dixon.
 Moore, J. S., Jr., Benicia.
 Moore, W. A., Benicia.
 Pendleton, B. F., Vallejo.

Pfister, Joseph, Suisun.
 Shaw, J. F., Vallejo.
 Stanton, J. C., Rio Vista.
 Upchurch, N. B., Vacaville.
 Upham, F. F., Dixon.
 Vorhees, G. L., Vallejo.
 Vogelmann, D. J., Vallejo.

Sonoma County.

Anderson, D. P., Santa Rosa.
 Atwood, David G., Sonoma.
 Bates, C. P., Petaluma.
 Cole, Hiram, Santa Rosa.
 Cooper, E. M., Santa Rosa.
 Coomes, A. M., Cloverdale.
 Esbach, D. M., Sonoma.
 Galbraith, M. D., Cloverdale.
 Huebner, O. C., Healdsburg.
 Jones, H. McK., Cloverdale.
 Krueger, O. F., Healdsburg.
 Litchfield, Oscar, Healdsburg.

Lovejoy, G. E., Petaluma.
 McLane, A. F., Santa Rosa.
 Nye, W. E., Healdsburg.
 Perkins, C. O., Petaluma.
 Rankin, J. H., Santa Rosa.
 Reed, C. W., Santa Rosa.
 Savage, C. W., Santa Rosa.
 Stone, J. T., Petaluma.
 Tibbetts, A. L., Petaluma.
 Wiley, J. N., Santa Rosa.
 Williams, V. A., Cloverdale.

Stanislaus County.

Cooper, M. L., Modesto.
 Drollard, T. W., Modesto.
 Hamilton, Cyrus, Newman.
 Preshaw, R. G., Oakdale.

Remington, J. W., Modesto.
 Weyer, G. A., Modesto.
 Wood, C. C., Modesto.

Tehama County.

Albright, F. H., Red Bluff.
 Barrett, C. J., Red Bluff.

Boone, N. J., Red Bluff.
 Esterle, A. M., Red Bluff.

Trinity County.

La Barea, W. H., Weaverville.

Tulare County.

Asay, Casper E., Visalia.
 Belfils, E. K., Tulare.
 Carpenter, B. L., Porterville.
 Combs, H. M., Visalia.

Combs, J. E., Visalia.
 Hunsaker, G. W., Tulare.
 Martin, Todd, Tulare.
 Taggart, D. R., Tulare.

Tuolumne County.

Eastman, W. W., Sonora.
 Menendez, H., Sonora.

Menendez, J. A., Sonora.

Ventura County.

Badgley, A., Ventura.
 Bonnell, F. C., Hollister.
 Clayton, W. E., Ventura.
 Hedrick, L., Ventura.

Sloan, J. H., Ventura.
 Staire, H. M., Ventura.
 Staire, J. M., Ventura.
 Stewart, S. L., Ventura.

Yolo County.

Campbell, R. E., Woodland.
Dick, A. N., Woodland.
Grant, J. T., Woodland.
Holmes, L. B., Woodland.

Lucas, D. L., Esparto.
Morris, Amiel, Woodland.
Musselman, D., Madison.
Wyatt, M. O., Winters.

Yuba County.

Bometter, F., Marysville.
Boyd, C. W., Marysville.
Boyd, G. H., Marysville.
Howard, J. L., Marysville.
Jewett, Stanley, Marysville.

Kimerer, L. L., Marysville.
Moore, J. E., Marysville.
Suggett, A. H., Marysville.
Walker, A. J., Hansonville.
Walker, J. T., Hansonville.

DECEASED LICENTIATES.

Adams, Q. L.	Dutch, Wm.	Parsons, M. W.
Austin, H.	Gates, O. J.	Porter, J. P., Sr.
Baynes, H. F.	Gonzales, I. T.	Raw, Henry
Bernard, G. W.	Goodell, L. E.	Rubell, W. H.
Birge, J. J.	Graves, W. L.	Sheets, H. C.
Blondin, Arthur	Griswold, W. F.	Shrewsbury, N.
Blood, J. N.	Halsey, I. S.	Smith, J. B. M.
Bunnell, E. F.	Hann, W. D.	Spaw, C. R.
Burch, Maria A.	Harlan, C. N.	Swift, T. E.
Burnette, E. T.	Hodgen, I. N.	Thrall, H. H.
Caldwell, C. L.	Hoffman, M.	Van Winkle, H. M.
Card, I. D.	Jacobs, B. R.	Von Bonhurst, C. G.
Case, G. A.	Kingsbury, Wm. B.	Wade, Thos.
Case, I. M.	Knapp, A. R.	Waltz, G. W.
Cole, R. E.	Lee, E. W.	Ward, S. T.
Cooper, G. W.	Light, W. W.	Westover, G. C.
Dick, W. A.	Lightbody, H., Jr.	Whipple, T. S.
Doulton, G. H.	Moore, C.	White, F. H.
Drucker, W. E.	Moore, J. S., Sr.	Wilbirt, J. L.
Dyer, J. J.	Moulton, C. R.	Winter, W. G.

ILLEGAL PRACTITIONERS.

The following is a list of persons reported at this office as engaged in the practice of dentistry, none of whom possess a certificate as required by law; hence, they are designated "illegal practitioners."

We have taken the precaution to send at least one communication to each person herein reported, and most of them have received many more, calling attention to the requirements of the Dental Law, and notifying them of the proposed publication of this list, as directed by the resolution of August 13, 1891:

"*Resolved*, That the California State Board of Dental Examiners publish a list of the unlicensed practitioners of dentistry of said State, in their annual report to the Governor of the State, each year."

Should any error have been made, we will gladly correct it if properly notified.

Brenner, M. E., Fresno.	Lord, J. A., Clifton.
Brown, —, Susanville.	Little, Henry, Oakland.
Brown, H. C., San Francisco.	Mack, William, Oakland.
Burtrand, E. H., San Francisco.	Matthews, Chas. F., San Francisco.
Cabraca, F.	Maxson, W. B., Chino.
Capell, F. C., Rosedale.	Mervy, E. T., San Francisco.
Cavanah, —, Fresno.	Meade, S. H., San Juan.
Conkleman, Bernard, Los Angeles.	Merrick, W. E., Santa Paula.
Cureton, William, Fresno.	Merrick, J. K., Santa Paula.
Dameck, J. B., San Diego.	Moody, B. F., Susanville.
Davis, E. L., San Francisco.	Payne, N. T., San Francisco.
Decker, J. H., San Francisco.	Parker Bros., Pasadena.
Dermont, J. J.	Powell, L. A., Soldiers' Home.
Dickover, J. J., Long Branch.	Prentis, A. B., Crescent City.
Fall, J., Centerville.	Raymond, E. A., Tulare.
Fong, Charles, San Francisco.	Regensberger, A. T., San Francisco.
Forbes, Franklin, San Francisco.	Roller, O. P., Los Angeles.
Freeze, J. W., Eureka.	Root, C. B., San Francisco.
Galeoto, S. F., San Francisco.	Russell, M. L., Oceanside.
Gilstrap, C. A., Saticoy.	Schroder, H., San Francisco.
Grove, W. C., Modesto.	Slapp, A., Montalvo.
Hennessy, J. C., San Francisco.	Smith, Charles, Lemoore.
Hoadley, G. C., San Francisco.	Smith, R. W., San Francisco.
Hone, P., Santa Clara.	Strong, Thomas, Woodland.
Jones, C. V., Mariposa.	Sylvester, W. G., San Francisco.
King, Wing & Co., San Francisco.	Tredwell, F. C., San Francisco.
Kimpy, Max, Oakland.	Van Vleck, J. D., Los Angeles.
Landon, J. P., San Francisco.	Wolfe, L. Elliot, Escondido.
Leek, J. J., San Francisco.	

DENTAL INSTITUTIONS REPRESENTED BY LICENTIATES OF THIS BOARD.

The following is a list of dental institutions from which diplomas have been recognized by this Board, arranged alphabetically as to States:

California.

College of Dentistry, University of California, San Francisco 181

Colorado.

University of Denver, Dental Department, Denver 2

Georgia.

Dental Department of Southern Medical College, Atlanta..... 2

Illinois.

Chicago College of Dental Surgery, Chicago 14

Northwestern University, College of Dentistry, Chicago..... 5

Indiana.

Indiana Dental College, Indianapolis..... 15

Iowa.

University of Iowa, Dental Department, Iowa City..... 2

Kentucky.

Louisville College of Dentistry, Louisville..... 6

Louisiana.

New Orleans Dental College..... 1

Maryland.

Baltimore College of Dental Surgery, Baltimore..... 21

University of Maryland, Dental Department, Baltimore..... 12

Massachusetts.

Harvard University, Dental Department, Cambridge 1

Boston Dental College, Boston..... 7

Michigan.

University of Michigan, Dental Department, Ann Arbor..... 19

Minnesota.

College of Dentistry, Department of Medicine, University of Minnesota, Minneapolis 1

Missouri.

Missouri Dental College, St. Louis 8

Kansas City Dental College, Kansas City..... 9

Western Dental College, Kansas City 2

New York.

New York College of Dentistry, New York.....	7
University of Buffalo, Dental Department.....	1

Ohio.

Ohio College of Dental Surgery, Cincinnati.....	22
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Pennsylvania.

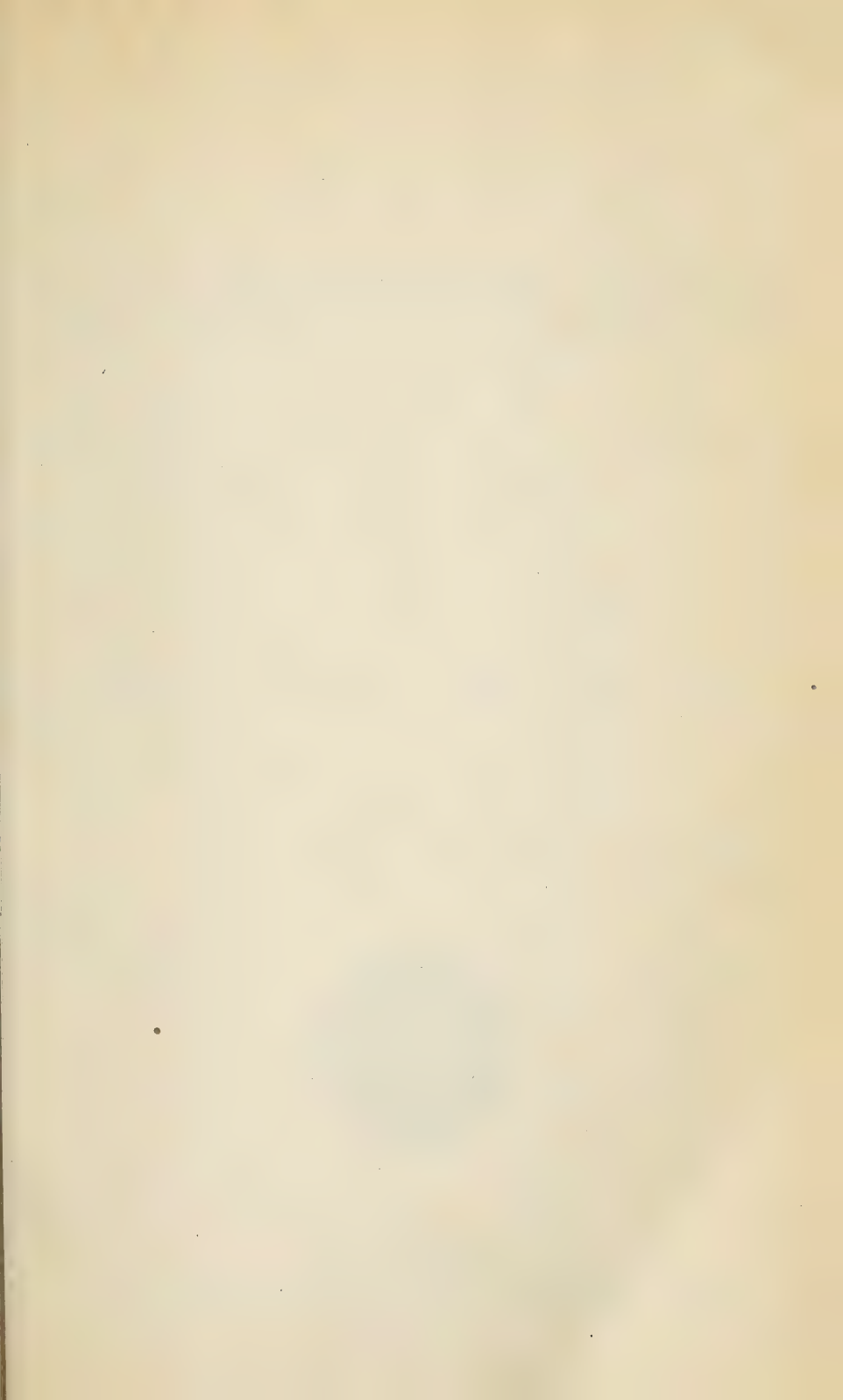
Philadelphia Dental College, Philadelphia.....	50
University Pennsylvania, Dental Department, Philadelphia.....	14
Pennsylvania College of Dental Surgery, Philadelphia.....	27

Tennessee.

Vanderbilt University, Dental Department, Nashville.....	8
University Tennessee, Dental Department, Nashville.....	3

Canada.

Royal College of Dental Surgeons, Toronto.....	4
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BIENNIAL REPORT
OF THE
STATE BOARD OF PRISON DIRECTORS
OF THE
STATE OF CALIFORNIA,
FOR THE
FORTY-SIXTH AND FORTY-SEVENTH FISCAL YEARS.

1894/95—1895/96.



SACRAMENTO:
A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.
1896.

STATE BOARD OF PRISON DIRECTORS.

R. M. FITZGERALD, PRESIDENT	Oakland.
EDGAR J. DEPUE	San Francisco.
D. E. HAYES	San Francisco.
J. H. WILKINS	San Rafael.
ROBERT T. DEVLIN	Sacramento.

OFFICERS OF SAN QUENTIN PRISON.

W. E. HALE	Warden.
JOSEPH V. ELLIS	Clerk.
JOHN C. EDGAR	Captain of the Yard.
J. C. JAMIESON	Turnkey.
WM. M. LAWLOR	Resident Physician.
A. DRAHMS	Chaplain.

OFFICERS OF FOLSOM PRISON.

CHARLES AULL	Warden.
BRAINARD F. SMITH	Clerk.
J. E. BAKER	General Overseer.
C. L. BROWNING	Physician.



REPORT.

To his Excellency JAMES H. BUDD, Governor of the State of California:

We herewith have the honor to present our biennial report, as the State Board of Prison Directors, for the two years ending June 30, 1896, together with the reports of the Wardens and Clerks of the respective prisons at San Quentin and Folsom.

Two important subjects have claimed much of the time and attention of the Board: First, to keep the running expenses of the institutions under our control as low as possible, in order that the per capita for maintenance should always be at the minimum; and, second, to discover or formulate some plan whereby the prisoners may be so employed that they would earn enough to support themselves, and thus not be a tax upon the people of the State.

A glance at the reports of the Wardens will show that we have been successful in keeping the per capita even below what it has been in previous years. But how to employ the large number of prisoners in both prisons, at something which would prove profitable, is a question full of difficulties and one which we have not yet solved. It is apparent that, so far as making money for the State is concerned, the jute mill is not, and in our opinion never will be, a success under the present condition of affairs. It has been run at a loss, although at the present time a small profit is being made in the manufacture of sugar bags; yet it must not be forgotten that it is and has been of untold benefit to the farmers of the State in keeping the price of grain bags at the very lowest figure, preventing, as it undoubtedly does, combinations among the dealers, and saving to the farmers in general what it does not save to the prison fund. Taking this view of it, the jute mill has been a benefit to a class of people who require all the assistance they can get. It would, however, be just as beneficial to them, and more of a success financially, if the Board were not hampered by the unnecessary provisions of the Ostrom law, and we earnestly urge that some modification of its provisions be made so that the Board of Prison Directors would be enabled to offer the output of the jute mill for sale, without compelling the farmer to go many miles to a Notary Public to make affidavit that he requires the goods for his own use. It would be well that the Board should have the privilege of disposing of the output of the jute mill even outside of the State, which we cannot now do, under the opinion given by the Attorney-General. The three million grain bags

now on hand would have been disposed of, in our opinion, at least at cost, and maybe in some instances at a profit, were the Board free to act in the matter without being hampered by the unnecessary and unbusiness-like provisions found in our statute books.

To find some industry in which the prisoners can be employed at fair remuneration, is a question which is and always will be a very serious and difficult one for prison officials to deal with. Not that there is no such industry, but the question raised by free laborers as to prisoners interfering with their right of gaining a livelihood, is one which cannot be set at naught and must be considered. Yet in this State many of the Eastern prisons find a good market for their articles, and while the people of this State complain about prison labor in its State Prison, they are purchasing from day to day articles which help to sustain the prisons in other States. In short, to make the prison labor remunerative, and at the same time not bring it in conflict with free labor, something must be engaged in which is not carried on in the State, and yet is profitable. This is indeed a difficult proposition. It is difficult to suggest the remedy, and space forbids an extended discussion of the subject. We think, however, that one source of profit would be, as suggested in Warden Aull's report, to make use of the building granite now owned by the State, and that this could be disposed of at such a figure as would be beneficial to those who are building, as well as to the laborer who would be employed to handle the granite at the building.

The free power at Folsom reduces the price of handling and taking out granite, and as a building material it is first-class.

Again, we think that some of the prisoners might be profitably employed in the making of willowware, but at the present time we could not recommend engaging in many industries, even to supply the State institutions. There are some few industries which could be profitably carried on at Folsom, even though the articles should not be offered for sale, but should merely be used whenever the State would have to purchase such articles.

After very careful consideration and investigation, we are strongly of the opinion that much benefit would result were the prisons consolidated at Folsom. The free power there means the saving of a great deal of money each year, and besides, the per capita for maintenance would be much lower where the number of prisoners is greater.

We believe that it would be of untold benefit to have constructed at Folsom additional prison room on the most approved and modern plan. This need not be done immediately, but sufficient appropriation could be made so that during the next two years it could be commenced and some of it completed, and then an additional appropriation made afterward, to complete it. With the prison labor and free power, and the granite on the ground, a model prison could be constructed there at a

nominal cost. The cost of the change would not be great, and we reiterate all that was said on the subject in our report of two years ago. As it now is, we have but few single cells wherein can be confined prisoners who are quarrelsome or dangerous to the others, and we have many such to deal with. Again, we sadly need some place in which the insane patients can be cared for. At present we are compelled to send to one of the asylums those who become totally deranged, and in many instances they escape. This should not be. There should be an insane ward for such people within the prison walls.

The appropriation for the support of the prisons is some \$30,000 less than heretofore, yet by the exercise of the strictest economy we hope to keep within the appropriation, although we have had some additional expenses to bear not contemplated when the appropriation was made; such as the building of the Tiburon road, which is fully referred to in Warden Hale's report. Should this work continue, some provision will have to be made for it in the next appropriation. We also desire to call attention to the necessity for appropriations for the building and repairing of the wharf at San Quentin, also for securing a system of sewerage for the prison at Folsom, both of which subjects are fully referred to in the Wardens' reports.

We feel that it will not be possible to maintain the prisons on the same appropriations made by the last Legislature, owing to the increase in the number of prisoners, as well as to the uncertainty attending the sale of grain bags.

The parole law has thus far worked well, and in our opinion has done much to reform those who have been accorded its privileges.

The rock-crusher has been a decided success, and has materially reduced the price of road-metal in all places where distance has not made the price of transportation too great. The Railroad Company has given the Board a very low schedule of freight rates on the rock, which has tended much to make the rock-crushing plant the success that it is.

It is absolutely necessary to have at Folsom another air-compressor, as the one there now is inadequate to furnish necessary power for the rock-crusher and also sufficient power for handling or taking out the granite; and we earnestly urge an appropriation for this purpose.

Much more could be said on the matter of consolidation of the prisons, showing the benefit which would be derived by the State, and, we believe, by the prisoners as well, and also as to the necessity for the Legislature making some provision for the employment of the prisoners in the future, besides working them in the jute mill; also upon other subjects, which are fully covered, however, in the reports of the Wardens of the two prisons; but, as it is not intended that this report should be an extended discussion of these matters, we simply hope to call your Ex-

cellency's attention, and that of the Legislature, to the important points and changes suggested.

In conclusion, we would recommend:

First—That some appropriation be made looking to the enlargement of the Folsom Prison, with the idea of future consolidation;

Second—That the Legislature take some action with reference to the employment of prisoners at industries other than the manufacture of jute fabrics;

Third—That the provisions of the Ostrom law, governing the sale of jute bags at San Quentin, be repealed, and the Board left free to act in the matter of the disposal of the same;

Fourth—That appropriations be made for the construction of an insane ward at one of the prisons; also, for the building of the wharf at San Quentin, and for the purpose of securing for the Folsom Prison a system of sewerage which will be approved by the State Board of Health;

Fifth—That should the work of building roads be continued, the same be taken into consideration in fixing the next appropriation.

Personally, and as a Board, we desire to acknowledge the many courtesies and kind consideration received at your hands, and to express our appreciation of the deep interest you have always taken in the institutions under our control. It gives us pleasure here to say that the Wardens, Clerks, and officers of the prisons have been faithful and untiring in their efforts to make the institutions a success, and we congratulate the State on its corps of officers in each prison.

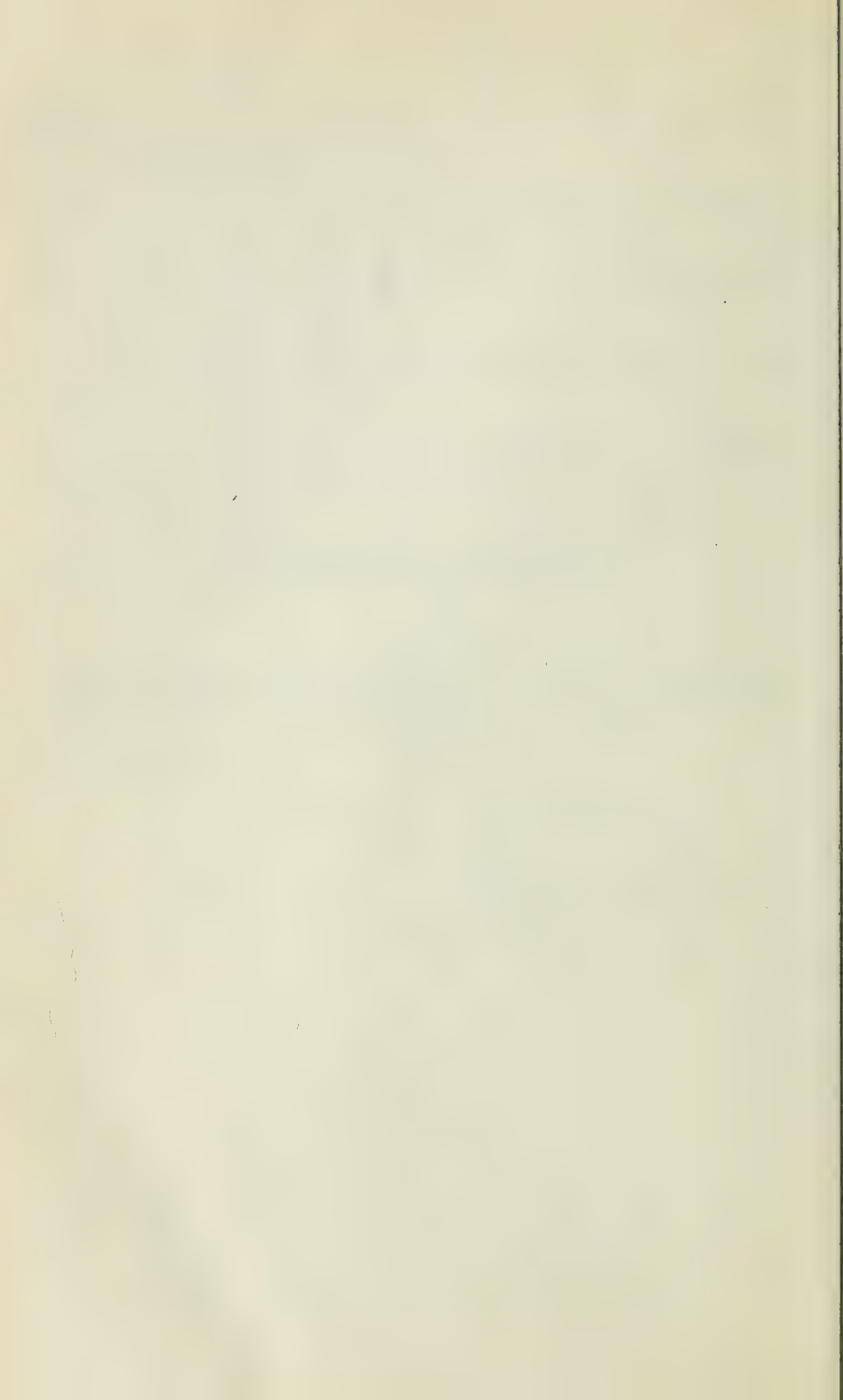
Respectfully submitted.

R. M. FITZGERALD,
EDGAR J. DEPUE,
DANIEL E. HAYES,
ROBERT T. DEVLIN,
JAMES H. WILKINS,

Board of State Prison Directors.

REPORT OF THE WARDEN
OF THE
STATE PRISON AT SAN QUENTIN, CALIFORNIA.

FOR THE YEAR ENDING JUNE 30, 1895.



WARDEN'S REPORT.

WARDEN'S OFFICE,
SAN QUENTIN PRISON, August 1, 1895.

To the Board of State Prison Directors:

GENTLEMEN: I have the honor to herewith submit my annual report for the forty-sixth fiscal year, ending June 30, 1895; also, the reports of the Captain of the Yard, the Turnkey, the Physician, and the Chaplain, accompanied by the report of the Clerk of the Prison, showing the financial transactions for the past year.

It is with pride that I respectfully call your attention to the continued reduction in the maintaining cost per capita for the year just ended, as shown by the Clerk's report. The net cost per man per month was \$9 26, and per day 30.45 cents.

Since the report for the forty-fifth fiscal year the office of Turnkey has been created, and by his report you will observe that our monthly average of prisoners is considerably less for the past year, it being 1,287 $\frac{1}{3}$, against 1,351 for the preceding year.

The report of the Resident Physician shows an increase in the number of deaths. This is accounted for by the prevalence of pulmonary troubles; and during the year three condemned men were executed, one died from the effects of a knife wound, and one committed suicide. There are many important and interesting matters referred to in this report which I respectfully call to your attention. The suggestion of having a proper place for the care and treatment of those who are partially insane, is a most important one, and one that should receive immediate attention.

The Chaplain's report shows a large increase in the number of books and magazines in the library. Many of these have been donated by charitably disposed persons, and a large number have been purchased. Many of the books donated have to be rebound, and we are doing fairly well with the poor facilities in the way of bookbinding appliances we have, all of which are very old and out of date. With some new tools for such purposes and a small press, with a few cases of type, a great deal of the printing and binding required in the various departments could be done here, and at the same time would afford to some of our younger prisoners the opportunity to learn the trade of printing and bookbinding.

Religious services are held each Sabbath day, alternately by the Resi-

dent Chaplain and the Reverend Father Lagan and his assistants, and it affords me much pleasure to report the good work being done by these reverend gentlemen in the way of attending the sick and dying.

During the past year the Salvation Army has held services every other Sunday in the prison yard, and I am pleased to report that close attention is paid by the inmates to these services. Another branch of Christian work under their charge is the furnishing of employment to outgoing prisoners, and this is carried on quite successfully. This is a very important work, and I trust and hope some means may be found to largely increase its scope and usefulness in the near future by State aid or other means.

The following is the report of the workings of the Jute Mill for the forty-sixth fiscal year ending June 30, 1895:

MANUFACTURING STATEMENT OF JUTE DEPARTMENT FOR THE FISCAL
YEAR ENDING JUNE 30, 1895.

Raw jute on hand July 1, 1894.....	1,199 bales.	
Raw jute received since	11,477 bales.	
	<hr/>	
	12,676 bales.	
12,676 bales, at 400 lbs., equals.....		5,070,400 lbs.
Less amount rejected on account of damage		7,633 lbs.
		<hr/>
		5,062,767 lbs.
Less raw jute on hand June 30, 1895—5,061 bales, at 400 lbs., equals.....		2,024,400 lbs.
		<hr/>
		3,038,367 lbs.
Deduct increase in amount of raw jute in process of manu- facture on June 30, 1895	82,362 lbs.	
Over amount on July 1, 1894	77,265 lbs.	
	<hr/>	
		5,097 lbs.
Net amount of raw jute used during the year		3,033,270 lbs.

GOODS MANUFACTURED.

38,753 cuts 45-inch burlap, equals 3,833,309 yds., at 12 oz. average weight	2,874,982 lbs.	
Twine sold and issued	2,938 lbs.	
Twine used in sewing 3,064,026 grain bags, at $\frac{1}{4}$ oz.	47,875 lbs.	
Twine used in sewing 528,100 grain bags, at $\frac{3}{10}$ oz.	11,552 lbs.	
Twine used in sewing 21,100 imperfect bags, at $\frac{1}{4}$ oz.	330 lbs.	
Twine used in baling 7,225 bales of goods, at 10 oz.	4,516 lbs.	
Loom and jute waste sold.....	32,370 lbs.	
	<hr/>	
Total weight of goods manufactured		2,974,563 lbs.
Loss in manufacturing 3,033,270 lbs. jute.....		58,707 lbs.
Or $1\frac{935}{1000}$ %.		

NOTE.—To calculate raw material for goods, add $1\frac{974}{1000}$ % to weight of goods required.

SPINNING AND WEAVING EXPENSES.

Coal.....	\$20,627 15	
Jute oil.....	3,179 57	
Sizing.....	1,662 06	
Machine oils and engine supplies.....	1,209 37	
Tools and repairs.....	10,794 52	
Salaries	20,295 09	
Water	872 80	
Miscellaneous	521 61	
Dye stuffs.....	74 52	
	<hr/>	
		\$59,236 69

Brought forward	\$59,236 69
Less expenses incurred in sewing of bags and keeping sewing-machines in repair; say—	
5% of coal	\$1,031 36
5% of sizing	83 10
5% of machine oils, etc.	60 47
5% of tools and repairs	539 73
5% of salaries	1,014 75
5% of water	43 64
5% of miscellaneous	26 08
	<u>2,799 13</u>
Net expense of spinning and weaving 3,833,309 yds. of cloth	\$56,437 56
Or $1\frac{4723}{10000}$ cents per yard.	

SEWING EXPENSES.

Percentage of gross spinning and weaving expenses, as per statement above	\$2,799 13
59,757 lbs. of jute twine, at \$4 10	<u>2,450 04</u>
Total expense of sewing 3,613,226 bags	\$5,249 17
Or $1\frac{453}{10000}$ cent per bag.	

BALING EXPENSES.

4½ yds. 12-oz. burlap, at 4.1341 cents per yd.	18.604 cents.
10 ozs. jute twine, at 4.10 cents per lb.	2.563 cents.
26 ozs. manilla rope, at 8¾ cents per lb.	<u>18.590 cents.</u>
Total per bale	39.757 cents.
Cost of baling 1 grain bag (500 per bale)	0.080 cent.
Cost of baling 1 yard burlap (750 per bale)	0.053 cent.

SHIPPING EXPENSES.

Drayage credited to Stock Department, \$35 per month on say 600 bales goods	5.84 cents.
Freight per steamer to San Francisco	<u>25.00 cents.</u>
Total per bale	30.84 cents.
Cost of shipping 1 grain bag (500 per bale)	0.0617 cent.
Cost of shipping 1 yard burlap (750 per bale)	0.0411 cent.

COST PRICE OF GOODS MANUFACTURED DURING THE YEAR.

45-inch Burlap.

12 ozs. jute, at 3.48033 cents per pound	2.6103 cents.
Allowance of 1.974% to cover waste on material used	0.0515 cent.
Cost of spinning and weaving per yard	<u>1.4723 cents.</u>
Cost loose	4.1341 cents.
Baling	<u>0.053 cent.</u>
Cost in bale	4.1871 cents.
Shipping	<u>0.0411 cent.</u>
Cost per yard delivered in San Francisco	4.2282 cents.

22 x 36 Grain Bag.

40 inches of 45-inch burlap, at 4.1341 cents per yard	4.5935 cents.
Sewing	<u>0.1453 cent.</u>
Cost loose	4.7388 cents.
Baling	<u>0.08 cent.</u>
Cost in bale	4.8188 cents.
Shipping	<u>0.0617 cent.</u>
Cost per yard delivered in San Francisco	4.8805 cents.

TOTAL OPERATING COST OF JUTE MILL FOR THE YEAR ENDING JUNE 30, 1895.

Total expenses incurred, including value of supplies on hand July 1, 1894:	
Raw jute	\$158,833 81
Raw jute in process of manufacture	2,827 40
Coal	20,627 15
Jute oil	3,522 47
Sizing	1,751 87
Rope (bale)	1,035 22
Machine oils and engine supplies	1,252 71
Tools and repairs	17,824 14
Salaries	20,295 09
Water	872 80
Miscellaneous	533 12
Freight on manufactured goods	1,456 55
	<u>\$230,832 33</u>
Less value of supplies on hand June 30, 1895, as per inventory:	
Raw jute	\$53,088 02
Raw jute in process of manufacture	2,692 64
Jute oil	342 90
Sizing	89 81
Rope	110 69
Machine oils, etc.	43 34
Tools and material for repairs	7,029 62
Miscellaneous	11 51
	<u>63,408 53</u>
Net operating cost for the year	<u>\$167,423 80</u>
Divided as follows:	
Value of raw jute used	\$105,745 79
Plus decrease in value of raw jute in process of manufacture	60 24
Net value of raw jute used	\$105,806 03
Spinning and weaving expenses	56,437 56
Sewing expenses (not including value of jute twine used)	2,799 13
Rope used for baling goods	924 53
Freight on manufactured goods	1,456 55
	<u>\$167,423 80</u>

PROFIT AND LOSS ACCOUNT.

Sales of manufactured goods during the year	\$83,935 59
Value of goods on hand June 30, 1895, at cost price	122,957 22
	<u>\$206,892 81</u>
Deduct:	
Net operating expenses	\$167,423 80
Value of goods on hand July 1, 1894	32,640 51
Value of 1,800 bags booked for and billed to farmers of Elk Grove in June, 1894, orders for which were canceled in July, at 5¼ cents	94 50
Value of 976 yds. burlap shipped to J. H. Girvin, National City, in October, 1893, and returned in April, 1895, at 6½ cents	63 44
	<u>200,222 25</u>
Net profit on goods sold during the year	<u>\$6,670 56</u>

BAG ACCOUNT.

22x36 Grain Bags.

On hand unsold on July 1, 1894	481,800
Manufactured during the year	3,592,126
Orders of Elk Grove farmers entered as sold in June, 1894, and canceled in July, 1894	1,800
Orders of various farmers booked in June, 1894, and not confirmed	18,000
	<u>4,093,726</u>
Sold during the year	1,588,226
Remaining on hand unsold on June 30, 1895	<u>2,505,500</u>

Imperfect Bags.

On hand unsold on July 1, 1894	1,500
Manufactured during the year	21,100
Sold during the year	22,600
Remaining on hand unsold on June 30, 1895	7,600
	15,000

GOODS SOLD DURING THE YEAR ENDING JUNE 30, 1895.

1,302,370 22 x 36 grain bags	@ \$0 05¼	\$68,374 44
235,300 22 x 36 grain bags	05	11,765 00
50,556 22 x 36 grain bags	04½	2,275 02
7,600 imperfect bags	05	380 00
2,016 yds. 45-inch burlap	06½	131 04
1,281 yds. 45-inch burlap	06	76 86
4,206 yds. 45-inch burlap	05	210 30
33 yds. apron cloth	08	2 64
2,910 lbs. 3-ply twine	07	203 70
2 lbs. 5-ply twine		11
1 bean sheet, 40 x 40		12 00
2 bean sheets, 40 x 50	15 50	31 00
1 bean sheet, 50 x 50		20 00
2 bean sheets, 10 x 50	4 00	8 00
10,730 lbs. jute rope (waste)	02	214 60
21,640 lbs. loom waste	01	216 40

Issued and Charged to Departments of the Prison.

50 lbs. jute yarn	@ \$0 04	\$2 00
56 yds. 45-inch burlap	06	3 36
80 yds. 45-inch burlap	05	4 00
22 lbs. 5-ply twine	06	1 32
4 lbs. 5-ply twine	05	20
45 yds. apron cloth	08	3 60
		\$83,935 59

INVENTORY OF STOCK OF MATERIALS AND MANUFACTURED GOODS IN
JUTE DEPARTMENT, JUNE 30, 1895.*Raw Jute.*

1,500 bales Bullub in circle, at 400 lbs. = 600,000 lbs. @ 2.4083c...	\$14,449 80
1,500 bales Rajendra in circle, at 400 lbs. = 600,000 lbs. @ 2.4083c...	14,449 80
429 bales Rajendra in circle, at 400 lbs. = 171,600 lbs. @ 2.7800c...	4,770 48
1,000 bales Bullub in circle, at 400 lbs. = 400,000 lbs. @ 3.0082c...	12,032 80
141 bales Bullub in circle, at 400 lbs. = 56,400 lbs. @ 3.0033c...	1,693 86
355 bales J. C. R. at 400 lbs. = 142,000 lbs. @ 3.0033c...	4,264 69
136 bales ass'ted jute in mill, at 400 lbs. = 54,400 lbs. @ 2.6224c...	1,426 59
5,061 bales	\$53,088 02

Raw Jute in Process of Manufacture.

22,417 lbs. carding, drawing, and roving	@ 3.15c.	\$706 14
1,135 lbs. spun yarn on bobbins	3.20c.	36 32
3,572 lbs. spun yarn on spools	3.25c.	116 09
13,838 lbs. spun yarn in cops	3.25c.	449 74
27,942 lbs. spun yarn in warp	3.30c.	922 09
12,579 lbs. partially finished cloth on looms (16,772 yds.)	3.40c.	427 69
879 lbs. twine	3.25c.	28 57

82,362 lbs.

10 lbs. aniline blue	@ 60c.	6 00
		2,692 64

Jute Oil.

550 gals. natural whale oil	@ \$0 32½	\$178 75
1,100 gals. mineral oil	12½	137 50
130 gals. mixed oil	20½	26 65
		342 90

Carried forward \$56,123 56

Brought forward \$56,123 56

Sizing Materials.

25 $\frac{3}{4}$ bbls. flour	@ \$2 25	\$57 94
90 lbs. glue	06 $\frac{5}{8}$	5 96
250 lbs. soap	07 $\frac{1}{10}$	17 73
10 lbs. paraffine wax	07 $\frac{1}{2}$	0 75
165 lbs. tallow	04 $\frac{1}{2}$	7 43

89 81

Rope.

1,265 lbs. manilla bale rope	@ \$0.08 $\frac{3}{4}$	\$110 69
------------------------------------	------------------------	----------

110 69

Machine Oils and Engine Supplies.

42 gals. A. M. spindle oil	@ \$0 35	\$14 70
65 gals. coal oil	10 $\frac{2}{10}$	6 63
5 gals. boiled oil	63	3 15
7 gals. neatsfoot oil	55	3 85
5 gals. lard oil	66	3 30
16 lbs. assorted packing	24	3 84
20 lbs. graphite	20	4 00
125 lbs. rosin	01 $\frac{1}{2}$	1 87
200 lbs. whiting	01	2 00

43 34

Material for Repairs and Tools.

40% of extra parts of machinery of all kinds, as per bill of Union Iron Works, February, 1893 = \$10,664 25		\$4,265 70
40 lbs. fulled rawhides	@ \$0 24	9 60
120 lbs. sole leather	26	31 20
20 lbs. belt leather	34	6 80
9 lbs. lace leather	27	2 43
10 ft. leather belting, 10-inch, double	1 20	12 00
61 ft. leather belting, 7-inch, single	36	21 96
81 ft. leather belting, 4-inch, single	16 $\frac{1}{2}$	13 36
25 ft. leather belting, 3-inch, single	12	3 00
44 sets loom harness	4 50	198 00
1,010 loom pickers (at \$2 30 per doz)		193 58
219 picker arms	10	21 90
49 porcelain friction rollers	05 $\frac{1}{4}$	2 57
288 mesquite friction rollers	01	2 88
2,400 birch spinning bosses (at \$13 per 100)		312 00
1,126 porcelain shuttle-eyes (at \$1 30 per 100)		14 64
256 new shuttles, mounted	50	128 00
653 new shuttles, in process	25	163 25
150 reeds	1 50	225 00
1,728 yds. spindle banding, 2-inch	04 $\frac{1}{8}$	71 28
3,960 yds. spindle banding, 1 $\frac{1}{2}$ inch	03 $\frac{5}{8}$	131 18
92 roving gill bars	18	16 56
99 drawing gill bars	36	35 64
80 M card pins, 13 $\frac{1}{2}$ x $\frac{7}{8}$	60	48 00
40 M card pins, 12 x 1	80	32 00
95 M card pins, 11 $\frac{1}{2}$ x 1	1 00	95 00
68 M Gill pins, 15 $\frac{1}{2}$ x 1	80	54 40
28 M Gill pins, 16 x 1	60	16 80
28 M Gill pins, 14 $\frac{1}{2}$ x 1 $\frac{1}{4}$	1 25	35 00
12 lbs. cabinet glue	09 $\frac{1}{2}$	1 14
1 bbl. Portland cement		2 50
3 doz. 4 $\frac{1}{2}$ -inch pocket scissors	2 40	7 20
1 2-foot rule		16
35 lbs. cotton sewing twine	24	8 40
15 lbs. cotton seine twine	24	3 60
14 quires emory cloth	45	6 30
100 assorted step bolts	02 $\frac{1}{2}$	2 50
2,500 assorted tire bolts	00 $\frac{1}{2}$	12 50
200 assorted carriage bolts	05	10 00
55 lbs. copper belt rivets	25	13 75
1 lb. $\frac{3}{8}$ tinned iron rivets		15
20 lb. No. 8 iron wire	05	1 00
30 papers cut tacks	05	1 50

Carried forward \$6,234 43 \$56,367 40

Brought forward		\$6,234 43	\$56,367 40
3 papers copper tacks	@ \$0 25	75	
2 papers steel wire nails	10	20	
9 gross wood screws	20	1 80	
1 gross set screws		2 50	
7 shoe knives	15	1 05	
2 monkey-wrenches, 6-inch	40	80	
1 monkey-wrench, 8-inch		45	
3 monkey-wrenches, 10-inch	50	1 50	
2 monkey-wrenches, 12-inch	60	1 20	
2 monkey-wrenches, 21-inch	1 50	3 00	
1 Osborn's revolving belt punch		1 00	
13 tubes for same	05	65	
9 lantern burners	11	99	
14 sail needles, assorted	01½	21	
4 baling needles	02	08	
24 slim mattress needles	15	3 60	
1 Washita oilstone		50	
11 assorted drive punches	15	1 65	
2 gimlet bits	05	10	
3 twist drills		15	
47 hammer needles	12½	5 88	
1 Yale wardrobe lock		75	
4 ½-inch wood chisels	30	1 20	
1 pair calipers		3 50	
2 flat-nose pliers	25	50	
2 ½-inch round glue brushes	25	50	
3 machinist's hammers	75	2 25	
141 assorted files	15	21 15	
10 14-inch wood rasps	40	4 00	
596 lbs. assorted cast steel	04	23 84	
48 lbs. sheet steel	25	12 00	
60 lbs. $\frac{5}{16}$ cast steel wire	20	12 00	
100 lbs. $\frac{1}{4}$ cast steel wire	21	21 00	
167 lbs. scissor steel wire	20	33 40	
20 lbs. $\frac{1}{4}$ x $\frac{3}{16}$ needle steel wire	60	12 00	
241 lbs. machine steel	04	9 64	
425 lbs. Norway iron	04	17 00	
629 lbs. refined iron	03	18 87	
860 lbs. castings	03	25 80	
40 lbs. copper	17	6 80	
350 lbs. scrap brass	10	35 00	
300 lbs. unfinished brass	15	45 00	
62 lbs. finished brass	20	12 40	
475 lbs. black iron rivets, assorted	07	33 25	
275 lbs. set screws, assorted	20	55 00	
80 lbs. cap screws, assorted	10	8 00	
675 lbs. bolts, assorted	06	40 50	
400 lbs. nuts, assorted	05	20 00	
75 lbs. washers, assorted	05	3 75	
60 lbs. sewing-machine needle chains	10	6 00	
70 lbs. cotton roving	26	18 20	
18 finished cotton rollers	1 50	27 00	
51 assorted files	15	7 65	
4 lbs. emory flour	08	32	
2 lbs. spelter	10	20	
1 lb. potash	10	10	
6 lbs. soda	02	12	
2 lbs. welding compound	20	40	
1 hammer handle		05	
2 sledge handles	10	20	
2 dusting brushes	25	50	
15 lbs. candles	08¼	1 24	
10 lbs. cotton waste	08½	85	
12 ft. 4-inch galvanized iron pipe	42	5 04	
1,558 lbs. rough castings	03	46 74	
400 lbs. stove castings	04	16 00	
1 box ¾-inch square flax packing		4 00	
¾ box ¼-inch square flax packing		1 00	
3 lbs. ½-inch square rubber packing	24	72	
4 ft. sugar pine	07	2 87	
1¾ kegs nails		2 63	
4 sheets XXXXXX tin, 28 x 66		12 00	
40 sheets XXXX tin, 14 x 20		6 10	
Carried forward		\$6,901 52	\$56,367 40
2—SP			

Brought forward		\$6,901 52	\$56,367 40
20 sheets XX tin, 14 x 20		1 65	
1 sheet galvanized sheet-iron, No. 26, 28 x 70		1 00	
135 lbs. bright iron wire, assorted	@ \$0 02 $\frac{3}{4}$	3 71	
$\frac{1}{4}$ pkg. 1-lb. tinned rivets		07	
$\frac{1}{4}$ pkg. 2-lb. tinned rivets		10	
$\frac{1}{4}$ pkg. 4-lb. tinned rivets		18	
$\frac{1}{4}$ pkg. 5-lb. tinned rivets		21	
25 lbs. solder	13 $\frac{1}{2}$	3 37	
2 lbs. resin	01 $\frac{1}{2}$	03	
2 lbs. muriatic acid	25	50	
3 sks. charcoal	50	1 50	
$\frac{1}{2}$ gal. lard oil	66	33	
5 sks. coke	75	3 75	
123 lbs. scrap brass	10	12 50	
$\frac{1}{4}$ bbl. sea coal		1 50	
$\frac{1}{4}$ bbl. black lead		1 50	
$\frac{1}{4}$ bbl. pulverized charcoal		50	
35 lbs. limestone	02	70	
Assorted lumber in carpenter-shop		75 00	
Assorted nails, screws, etc., in carpenter-shop		20 00	
			7,029 62

Miscellaneous.

1 doz. mill brooms		\$3 25	
7 lbs. lamp black	@ \$0 09	63	
1 box red chalk		60	
1 $\frac{1}{2}$ box white chalk crayons	20	30	
4 sheets stencil board	20	80	
8 marking brushes	05	40	
5 stencil brushes	15	75	
9 mem. books, small	25	2 25	
4 mem. books, large	35	1 40	
5 quires legal cap paper	15	75	
3 whisk brooms	12 $\frac{1}{2}$	38	
			11 51

Manufactured Goods.

2,493,500 22 x 36 grain bags, baled	@ 4.8188c.	\$120,156 78	
12,000 22 x 36 grain bags, sewn	4.7388c.	568 66	
17,100 22 x 36 grain bags, hemmed	4.5935c.	785 49	
15,000 imperfect bags	4.8188c.	722 82	
175 cuts 45-inch burlap = 17,500 yards	4.1341c.	723 47	
			122,957 22
Total			\$186,365 75

I again respectfully call your attention to the absolute need of a new wharf; also water pipes, fire plugs, and hose for the protection of the officers' houses and buildings belonging to the State.

I take this opportunity to thank your Honorable Board, and the officers and guards of this prison, for the assistance and coöperation that I have received during the past year in the management of this institution.

Your obedient servant,

W. E. HALE,
Warden.

CLERK'S REPORT.

CLERK'S OFFICE, CALIFORNIA STATE PRISON,
SAN QUENTIN, August 1, 1895.

To the Honorable Board of State Prison Directors:

GENTLEMEN: I herewith submit for your consideration a full statement of the financial transactions of this prison for the forty-sixth fiscal year, ending June 30, 1895:

Table 1—Cash receipts from all sources during forty-sixth fiscal year.

Table 2—Cash disbursements during forty-sixth fiscal year.

Table 3—Issues from Commissary Department during forty-sixth fiscal year.

Table 4—Abstract of expenses during forty-sixth fiscal year.

Table 5—Cost of maintaining prisoners during forty-sixth fiscal year.

Table 6—Earnings during forty-sixth fiscal year.

Table 7—Assets and liabilities.

Table 8—Experts' certificate.

Very respectfully,

J. V. ELLIS,
Clerk.

TABLE No. 2.—Cash Disbursements of the State Prison at San Quentin during the Forty-sixth Fiscal Year, ending June 30, 1895.

	State Prison Fund.	Jute Revolving Fund.	Jute Freight, Etc.	Mechandise.	Materials.	Salaries of Jute Employés.	Discharged Prisoners.	Transportation of Prisoners.	Transportation of Inmate Prisoners.	Freight.	Advertising.	State Prison Directors' Expense.
1894—July.....	\$51,000 00		\$20,386 00	\$8,950 76	\$624 38	\$1,611 67	\$175 00	\$173 35		\$1,724 14	\$172 80	\$239 50
August.....	18,000 00	\$20,986 00	899 70	10,452 91	491 90	1,552 00	195 50	209 45	\$7 35	835 87		681 05
September.....	6,500 00	58,420 70		10,876 62	287 30	1,630 99	205 00	233 95	4 15	723 21		305 50
October.....		2,000 00	1,199 40	9,292 20	1,153 34	1,627 66	190 00	128 90	11 85	314 04		
November.....	2,847 75	700 00		9,583 41	554 40	1,620 42	190 00	112 50	6 35	274 25		202 00
December.....		500 00		9,106 00		1,627 00	120 00	137 20	11 85	191 67		
1895—January.....						1,630 13	155 00	85 80	18 55			1,132 30
February.....		100 00		10,735 52		1,630 55	185 00	138 65	11 75	12 00		102 00
March.....		500 00	458 90	10,199 96		1,594 21	125 00	99 80				141 80
April.....	3,000 00		(* 150 00)	10,825 45	38,038 26	1,650 78	140 00	126 05	8 35	202 55		
May.....		6,500 00	279 65	10,130 26		1,630 99	135 00	101 80	14 60	160 05		
June.....		4,500 00	771 00	22,837 52	23,938 52	1,630 39	140 00	185 90	14 10		35 00	260 60
Totals.....	\$81,347 75	\$94,206 70	\$26,090 85	\$122,990 61	\$65,038 10	\$19,416 79	\$1,955 00	\$1,733 35	\$109 20	\$4,437 78	\$267 80	\$3,134 75
	Gas.	Electric Lights.	Water.	Drugs and Medicines.	United States.	General Expense.	Salaries of Officers and Guards.	Paroled Prisoners.	Escaped Prisoners.	Execution Account.	Miscellaneous.	Total.
1894—July.....	\$145 53	\$175 00	\$562 00	\$182 78	\$96 40	\$397 14	\$4,035 01				\$35 00	\$42,186 46
August.....	156 24	175 00	382 20	216 76	32 80	131 00	4,338 56				35 00	60,578 79
September.....	180 60	175 00	808 55	163 00	111 05	94 08	4,332 76				35 00	85,687 46
October.....	206 64	175 00	594 60	143 88	37 80	145 67	4,301 64				35 00	22,157 62
November.....	252 00	175 00	588 30	131 15		95 06	4,364 84	\$710 25			35 00	23,042 68
December.....	259 56	175 00	463 10	270 25	75 70	86 28	4,356 67				35 00	18,015 28
1895—January.....			365 30	147 30	81 60	20 00	4,397 09		\$92 00		35 00	8,066 17
February.....	328 65	175 00	312 40	133 46		103 11	4,326 94		5 50		35 00	18,984 87
March.....	364 65	175 00	320 60	133 46		87 59	4,359 98				35 00	19,207 95
April.....	270 80	175 00	278 60	310 56		72 78	4,354 41				35 00	21,276 69
May.....	191 10	175 00	390 00	67 57		137 42	4,381 65				35 00	24,835 44
June.....	412 65	350 00	964 10		46 55	101 10	4,912 63			\$75 00	35 00	61,210 13
Totals.....	\$2,768 62	\$2,100 00	\$5,909 15	\$1,766 71	\$310 25	\$1,471 25	\$59,162 18	\$710 25	\$97 50	\$75 00	\$420 00	\$495,249 54
Balance cash on hand June 30, '95.....												24,574 89
Grand total.....												\$519,824 43

* W. R. Eckart.

TABLE No. 3.

Exhibit of the Issues from Commissary Department, during Forty-sixth Fiscal Year, ending June 30, 1895.

	Subsistence.	Forage.	Wood and Coal.	Coal Oil.	Tobacco.	Clothing.	Beds and Bedding.	Leather and Findings.	Furniture and Crockery.	Drugs and Medicines.
1894—July	\$1,374 62	\$128 38	\$1,746 61	\$71 95	\$436 16	\$1,265 39	\$52 00	\$500 69	\$53 55	\$14 87
August	4,549 95	115 71	2,742 64	66 81	573 81	556 22	110 84	261 25	52 51	7 90
September	4,339 55	16 32	1,404 75	56 10	384 85	1,059 34	17 18	489 79	42 02	22 04
October	4,439 21	29 66	214 13	56 10	451 42	1,049 25	-----	249 41	31 90	11 71
November	4,268 32	211 26	1,444 98	89 76	539 22	889 40	-----	377 80	31 59	29 67
December	4,381 86	326 85	2,837 59	62 02	426 05	750 42	115 61	323 22	31 51	7 81
1895—January	4,219 40	172 31	1,720 11	72 31	442 45	1,461 79	49 48	457 78	47 71	7 72
February	3,957 61	320 80	2,286 25	69 97	446 51	842 58	13 60	341 93	34 85	9 69
March	4,377 58	383 96	1,812 65	80 69	516 65	846 36	25 30	309 75	39 46	4 33
April	4,370 72	328 18	2,082 23	68 95	481 89	754 91	25 11	437 87	25 92	3 05
May	4,838 94	66 13	1,794 50	69 96	528 44	1,159 22	50 07	455 10	55 17	4 74
June	4,488 91	120 60	1,221 59	58 13	480 04	778 65	-----	306 36	34 50	166 57
Totals	\$52,606 67	\$2,195 27	\$21,308 03	\$822 75	\$5,707 49	\$11,413 55	\$459 19	\$4,510 95	\$480 69	\$290 10
	Ordnance.	Hardware and Tools.	Paints and Oils.	Building Material.	Wagons and Harness.	Stationery.	Photograph Material.	Miscellaneous.	Total.	
1894—July	\$13 26	\$591 68	\$548 27	\$222 50	-----	\$71 07	\$24 22	\$14 65	\$10,129 87	
August	1 20	681 54	619 09	106 87	\$39 02	84 41	25 55	21 84	10,617 16	
September	15 35	380 78	532 97	128 52	10 80	52 18	19 30	28 33	9,000 17	
October	16 50	367 67	519 85	97 06	8 48	46 48	24 10	41 44	7,654 37	
November	-----	448 16	345 49	206 33	6 50	73 21	14 50	6 76	8,983 05	
December	75	438 98	573 91	135 63	1 91	71 28	20 50	6 87	10,512 77	
1895—January	-----	263 26	510 55	172 19	1 50	55 17	12 10	27 10	9,667 94	
February	-----	496 40	479 76	26 76	10 39	68 28	41 85	11 42	9,438 65	
March	-----	396 82	686 94	506 72	12 90	75 43	33 75	5 42	10,114 71	
April	-----	464 85	556 50	67 92	1 05	70 55	31 75	4 27	9,775 72	
May	25 22	416 54	510 10	530 25	15 25	75 71	48 82	36 31	10,080 47	
June	11 75	346 30	591 10	20 96	64 45	57 26	20 20	62 73	8,830 10	
Totals	\$84 03	\$5,292 98	\$6,474 53	\$2,221 71	\$172 25	\$801 03	\$316 64	\$267 14	\$115,424 93	

TABLE No. 4.

Abstract of Expenses for the Forty-sixth Fiscal Year.

Advertising	\$59 63
Gas	2,842 14
Electric lights	2,100 00
Water	5,205 85
Water service	262 06
Escaped prisoners	97 50
Discharged prisoners	1,955 00
Transportation of prisoners	1,733 35
Transportation, insane prisoners	109 20
Salaries	59,162 18
Warden's residence, subsistence	1,337 11
Prison mess	41,038 78
Guards' mess	6,421 00
Officers' mess	1,004 63
Female mess	1,093 05
Night Guards' mess	662 05
Expenses of State Prison Directors	3,124 75
Captain of Yard's Department	7,146 80
Turnkey's Department	12,951 42
Hospital Department	3,736 75
Library	192 52
Guards' Department	593 67
Stock Department	1,312 00
Clerk's office	301 86
General expense	1,346 97
General repairs	2,269 10
Attorney fees	250 00
Execution account	75 00
Paroled prisoners' account	685 25
Total	\$159,069 62

TABLE No. 5.

Cost of Maintaining Prisoners, per Head.

Average number of prisoners for year, 1,278 $\frac{1}{4}$ —total cost		\$159,069 62
Average cost per head per month	\$10 37	
Average cost per head per day	34 $\frac{29}{100}$	
Total expenses for year		\$159,069 62
Net earnings of Jute Department	\$6,670 56	
Support of United States prisoners	9,824 50	
Rent of State houses	798 00	
Commissary Department	513 24	
Amount deducted by Board of Examiners from bill of Black Diamond Coal Company	153 70	
		17,960 00
Net expenses of prison for the year		\$142,109 62
Average net cost per head per month	\$9 26	
Average net cost per head per day	30 $\frac{45}{100}$	

TABLE No. 6.

Earnings, Forty-sixth Fiscal Year.

Jute Department	\$6,670 56	
Commissary Department	513 24	
		\$7,183 80
Support of United States prisoners	\$9,824 50	
Rent of State houses	798 00	
Deducted by Board of Examiners from bill of Black Diamond Coal Company	153 70	
		10,776 20
Total earnings for the year		\$17,960 00

TABLE No. 7.

Assets and Liabilities.

<i>Assets.</i>		
Buildings.....	\$491,890 10	
Real estate.....	50,910 55	
Reservoirs.....	31,278 55	
Furniture Department.....	12,928 86	
Jute Department—Equipment.....	446,314 41	
Stock, fabrics, etc.....	186,365 75	
Commissary Department—Stock.....	1,930 64	
Property.....	870 39	
Stock Department.....	11,906 73	
Guards' Department.....	11,910 80	
Captain of Yard's Department.....	22,554 92	
Turnkey's Department.....	6,559 90	
Hospital Department.....	2,935 19	
Warden's house—furniture and fixtures.....	7,958 78	
Clerk's office.....	1,989 83	
Library Department.....	1,420 10	
		\$1,289,725 50
Guards' mess.....	\$424 21	
Night Guards' mess.....	303 12	
Officers' mess.....	168 99	
Prison mess.....	3,178 20	
		4,074 52
Due from United States.....	\$2,610 90	
Due from sundry debtors.....	498 44	
Cash in State Prison Fund.....	75,861 88	
Cash in General Appropriation Fund.....	10	
Cash in Jute Revolving Fund.....	96 32	
Cash, balance on hand June 30, 1895.....	24,574 89	
		103,642 53
Total assets June 30, 1895.....		\$1,397,542 55
<i>Liabilities.</i>		
Unpaid bills for merchandise, June, 1895.....	\$10,818 12	
Unpaid salaries of officers and guards, June, 1895.....	4,982 47	
Unpaid wages, Jute Department, June, 1895.....	1,589 97	
		17,390 56
Excess of assets.....		\$1,380,151 99

EXPERT'S CERTIFICATE FOR THE YEAR ENDING JUNE 30, 1895.

STATE PRISON AT SAN QUENTIN, July 26, 1895.

I hereby certify that I have compared the annual report of Joseph V. Ellis, Clerk of San Quentin Prison, for the fiscal year ending June 30, 1895, with the several accounts as kept in the official books of said prison, and find it to be a true and correct statement from said books. I also certify that the Clerk has kept the accounts of San Quentin Prison for said fiscal year in such a manner as to explain clearly all its financial transactions, and when any sum was paid to the Warden the same has been properly entered on the books by the Clerk. I also certify that I find authorizations, duly and properly signed by a majority of the State Board of Prison Directors, for all disbursements included in said report for the fiscal year ending June 30, 1895, and that the Warden has required vouchers for all moneys by him expended during said fiscal year, and safely kept the same on file in his office at the prison.

L. WADHAM,
Expert Accountant for the State Board of Prison Directors.

CAPTAIN OF THE YARD'S REPORT.

SAN QUENTIN, June 30, 1895.

HON. W. E. HALE, *Warden San Quentin State Prison, California:*

DEAR SIR: I have the honor to herewith submit my annual report, in tabular statements, for the fiscal year ending June 30, 1895.

Very respectfully, yours,

JOHN C. EDGAR,
Captain of the Yard.

REPORT OF STATE BOARD OF PRISON DIRECTORS.

LABOR REPORT FOR THE FISCAL YEAR ENDING JUNE 30, 1895.

Productive Class.

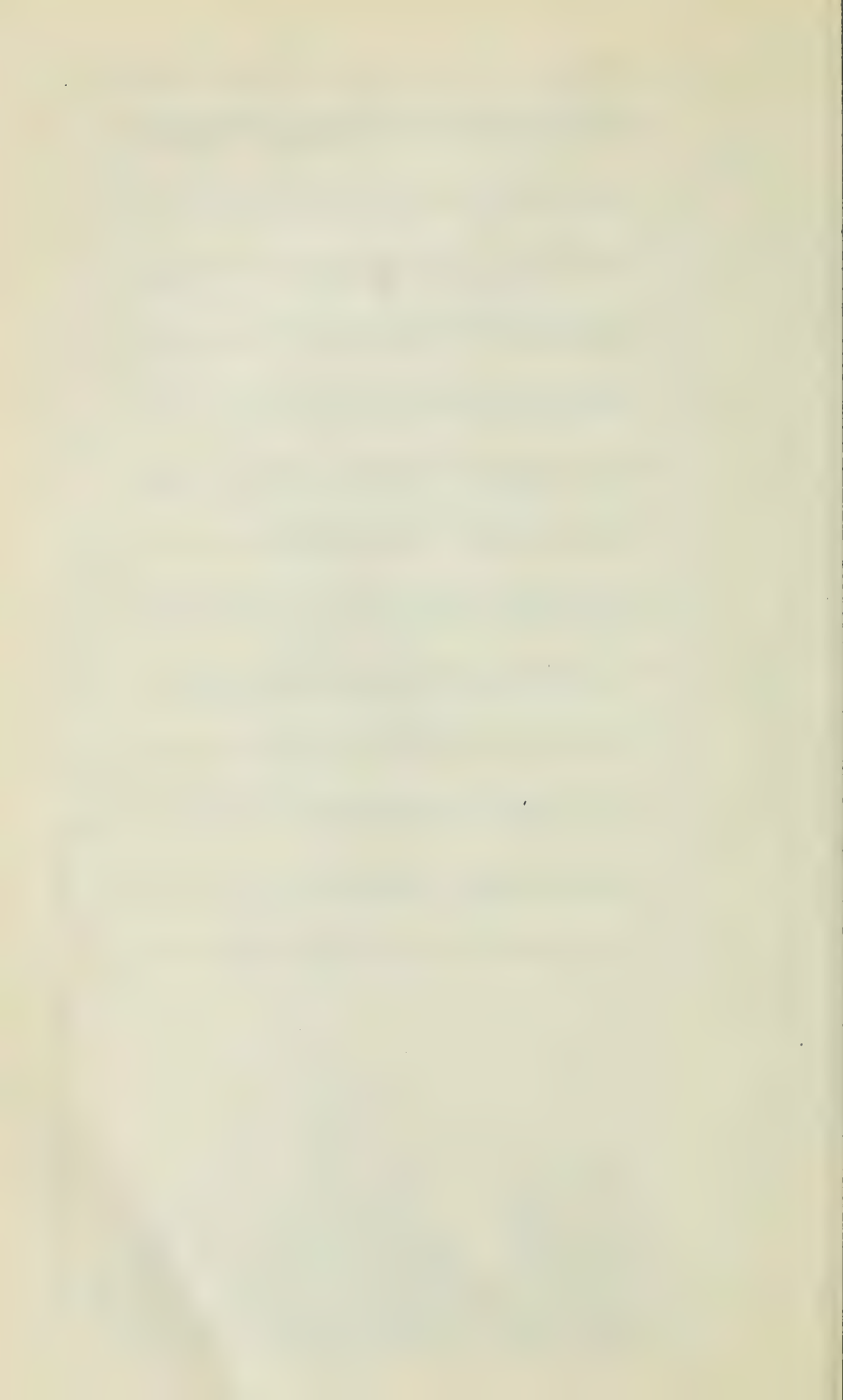
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	Total
Jute Department.....	18,088	19,345	9,413	18,270	16,014	15,495	17,827	15,035	16,537	13,869	17,099	16,199	153,191
Engineer's Department.....	75	99	76	84	85	87	89	74	52	54	52	50	877
Foundry Department.....	559	621	560	616	543	569	550	476	589	551	518	488	6,580
Stock and Stable Department.....	414	431	346	439	350	360	384	290	344	361	438	424	4,581
Female Department.....	372	372	300	372	376	403	393	331	324	347	465	435	4,490
Wheelright's shop.....	25	10	24	27	25	25	10	23	26	25	26	25	273
Upholsterer's shop.....	50	61	48	54	25	26	26	24	51	32	52	50	498
Locksmith's shop.....	31	31	25	31	30	31	31	24	26	26	34	30	342
Carpenter-shop.....	323	344	175	304	296	254	274	253	283	271	286	299	3,362
Plumber-shop.....	87	89	75	89	110	134	115	105	104	98	78	77	1,161
Cooper-shop.....	25	27	25	27	25	25	26	23	66	26	26	25	300
Paintshop.....	100	84	62	108	100	100	103	72	66	62	52	50	929
Tinshop.....	125	135	189	189	175	199	190	161	158	152	156	180	2,009
Coal yard.....	31	31	30	31	30	31	30	28	26	26	26	30	346
Vegetable Garden.....	236	260	198	264	234	238	246	235	233	234	241	295	2,914
Flower Garden.....	405	444	355	429	396	352	314	313	389	393	377	382	4,550
Beltmaker.....	25	27	24	27	25	25	26	24	26	26	26	25	306
Improvements.....	103	186	186	135	125	125	130	136	156	150	119	91	1,642
Stevadores.....	394	368	329	328	324	325	319	330	361	375	393	345	4,191
Rock-pile.....		734	811	851	879	---	381	759	862	906	795	814	7,792
Road gang.....	1,083	836	695	697	260	440	351	633	464	557	621	527	7,164
Chicken Ranch.....	62	62	50	62	60	62	58	56	52	52	62	60	698
Hog Ranch.....	62	62	50	62	60	62	62	56	52	72	68	60	728
Blacksmith's shop.....	88	48	72	81	75	75	77	37	44	51	52	50	750
Harnessmaker.....	26	-----	25	29	25	25	26	23	25	26	26	25	281
Totals	22,787	24,707	14,138	23,606	20,647	19,408	22,039	19,321	21,276	18,716	22,080	21,036	249,961

LABOR REPORT FOR THE FISCAL YEAR ENDING JUNE 30, 1895.

Non-Productive Class.

	1894.						1895.						Total
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	
Warden's office.....	31	31	25	31	30	31	31	28	26	26	31	30	351
Captain of Yard's office.....	219	217	175	217	210	247	261	231	176	207	248	240	2,648
Captain of Guards' office.....	15	30	25	31	30	31	31	28	26	26	31	30	334
Clerk's office.....	31	30	25	31	30	31	34	28	26	26	31	30	354
Commissary Department.....	232	233	224	247	235	248	263	217	234	236	238	254	2,961
Laundry Department.....	766	795	714	819	777	787	921	825	792	869	832	771	9,668
Library Department.....	174	171	149	192	175	180	171	108	124	130	130	150	1,854
Barbershop.....	225	217	187	246	240	247	241	214	168	208	208	240	2,641
Shoeshop.....	310	351	311	351	375	383	384	362	447	414	392	417	4,497
Tailorshop.....	369	373	325	338	350	374	392	356	363	417	462	425	4,544
Lamp-lighters.....	62	62	50	62	60	62	62	56	52	52	62	60	702
Bath-tank tender.....	31	31	25	31	30	31	26	8	26	26	31	30	300
Cell and room tenders.....	958	1,000	840	1,054	1,072	1,023	1,011	924	849	846	1,046	990	11,613
Hospital nurses.....	186	186	150	187	180	186	186	168	156	156	194	180	2,115
Gate and door tenders.....	440	440	353	496	449	465	486	415	416	412	488	404	5,264
Scavengers.....	286	288	255	285	280	290	317	385	250	302	401	345	3,684
Sweepers.....	454	487	426	496	455	478	456	396	448	379	402	503	5,380
Whitewashers.....	125	135	125	135	125	146	214	110	130	179	271	324	2,025
General kitchen and dining-room.....	2,029	1,913	1,587	2,021	1,974	2,031	2,033	1,837	1,666	1,753	2,041	1,973	22,858
Outside kitchen.....	372	372	330	403	390	403	401	359	331	347	465	450	4,623
Hospital kitchen.....	62	62	50	62	60	62	62	56	52	52	62	60	702
House servants.....	743	740	625	775	747	725	732	614	545	585	718	789	8,338
Electricians.....	31	31	25	31	30	31	31	28	25	25	31	30	361
Photographers.....	60	62	50	62	60	62	62	56	50	52	62	60	688
Messengers.....	99	93	75	93	90	93	69	56	52	52	62	60	894
Guards' Department.....	124	124	96	93	120	124	93	110	104	107	145	120	1,380
Warden's laundry.....	93	93	72	93	90	93	93	72	78	78	76	60	991
Cripples and insane.....	1,797	1,388	1,245	1,430	1,330	1,384	1,415	1,268	1,340	1,576	2,210	2,019	18,402
Daily excises, etc.....	1,028	901	522	670	804	658	710	677	1,133	945	544	506	9,068
Patients in hospital.....	840	732	552	606	608	718	808	728	654	675	442	382	7,405
Unemployed.....	940	690	7,546	338	346	280	5,744	415	1,139	3,079	121	781	21,439
Totals.....	13,132	12,279	17,159	11,926	11,752	11,904	17,828	11,137	11,878	14,268	12,478	12,713	158,394

Productive class, 249,461; non-productive class, 158,394; grand total, 408,855.



TURNKEY'S REPORT.

SAN QUENTIN, June 30, 1895.

HON. W. E. HALE, *Warden San Quentin State Prison, California:*

DEAR SIR: I have the honor to herewith submit my annual report, in tabular statements, for the fiscal year ending June 30, 1895.

Very respectfully, yours,

J. C. JAMIESON,
Turnkey.

TABLE No. 2.

Nativity of Prisoners.

United States and Territories.	No.	Per Cent.	Foreign.	No.	Per Cent.
At sea	2	.16	Africa	1	.08
Alabama	1	.08	Asia Minor	1	.08
Arkansas	7	.56	Austria	7	.56
California	282	21.60	Australia	9	.72
Connecticut	2	.16	Belgium	4	.32
Colorado	3	.24	British Columbia	4	.32
District of Columbia	2	.16	China	94	7.02
Florida	3	.24	Canada	24	1.92
Georgia	4	.32	Chile	2	.16
Illinois	51	4.08	Cuba	1	.08
Indiana	7	.56	Denmark	7	.56
Iowa	21	1.68	England	38	3.04
Kansas	6	.48	East Indies	3	.24
Kentucky	30	2.40	France	12	.96
Louisiana	10	.80	Finland	3	.24
Maine	7	.56	Germany	51	4.08
Maryland	6	.48	Greece	6	.48
Michigan	10	.80	Hayti	1	.08
Mississippi	1	.08	Holland	2	.16
Massachusetts	28	2.24	Hungary	3	.28
Minnesota	8	.64	India	1	.08
Missouri	36	2.88	Ireland	74	5.92
Montana	13	1.04	Italy	30	2.40
New Hampshire	2	.16	Isle of Man	1	.08
Nebraska	1	.08	Japan	1	.08
Nevada	1	.08	Mexico	41	3.28
New Mexico	3	.24	Nova Scotia	6	.48
New York	97	7.16	New Brunswick	2	.16
New Jersey	9	.72	Portugal	1	.08
North Carolina	5	.40	Poland	4	.32
Ohio	31	2.48	Prussia and Russia	3	.24
Oregon	7	.56	South America	1	.08
Pennsylvania	44	3.20	Sweden and Norway	14	1.12
Rhode Island	4	.32	Sicily	1	.08
South Carolina	8	.64	Switzerland	1	.08
Tennessee	2	.16	Spain	5	.40
Texas	6	.48	Scotland	15	1.20
Vermont	3	.24	Sandwich Islands	1	.08
Virginia	7	.56	Wales	2	.16
Wisconsin	13	1.04	West Indies	3	.24
West Virginia	1	.08	Turkey	1	.08
Washington	4	.32			
Alaska Territory	6	.48			
Arizona Territory	7	.56			
Utah Territory	5	.40			
	806	62.60			
			<i>Recapitulation.</i>		
			United States	481	37.40
			Foreign	806	62.60
			Totals	481	37.40
				1,287	100.00

TABLE No. 3.

Classification of Crime.

Crime.	No.	Crime.	No.
Arson	3	Crime against nature	12
Arson, first degree	5	Counterfeiting	16
Arson, second degree	11	Embezzlement	18
Attempt at burglary	6	Felony	38
Attempt at mayhem	1	Forgery	38
Attempt at murder (two commitments)	1	Forgery and prior	1
Abduction	3	Forgery (three commitments)	4
Assisting prisoner to escape	2	Grand larceny	154
Assault to murder	40	Grand larceny and prior	7
Assault with caustic chemicals	1	Grand larceny (two commitments)	7
Assault to murder and robbery	1	Grand larceny and five priors	2
Assault with deadly weapon	32	Incest	1
Assault to rob	20	Injuring public jail	4
Assault to rape	35	Murder	12
Assault to commit sodomy	4	Murder, first degree	106
Bribery	2	Murder, second degree	82
Burglary	42	Manslaughter	47
Burglary, first and second degrees (nine commitments)	1	Obtaining money by false pretense	9
Burglary, second degree, and robbery	1	Perjury	11
Burglary, first degree	139	Passing counterfeit money	1
Burglary, second degree	126	Petit larceny (second offense)	3
Burglary, first degree (two commitments)	21	Petit larceny and prior	3
Burglary, second degree (two commitments)	10	Robbery	115
Burglary, first degree and prior	5	Robbery and prior	10
Burglary, second degree and prior	10	Robbery (two commitments)	4
Burglary, first degree (four commitments)	3	Robbing U. S. mail	5
Bigamy	1	Rape	29
		Receiving stolen goods	2
		Smuggling opium	3
		Sodomy	3
		Selling liquor to Indians	14
		Total	1,287

TABLE No. 4.

Terms of Imprisonment.

Term of Years.	No.	Term of Years.	No.
One quarter year.....	1	Sixteen years.....	3
One half year.....	2	Seventeen years.....	6
One year.....	73	Eighteen years.....	4
One and one quarter years.....	3	Nineteen years.....	1
One and one half years.....	11	Twenty years.....	35
One and two twelfths years.....	2	Twenty-one years.....	4
One and nine twelfths years.....	1	Twenty-two years.....	1
Two years.....	96	Twenty-four years.....	3
Two and one half years.....	7	Twenty-five years.....	21
Three years.....	166	Twenty-six years.....	6
Three and one twelfth years.....	5	Twenty-eight years.....	1
Three and one half years.....	5	Thirty years.....	7
Four years.....	70	Thirty-two years.....	1
Five years.....	160	Thirty-three years.....	1
Six years.....	44	Thirty-five years.....	7
Seven years.....	66	Thirty-nine years.....	1
Seven and one half years.....	4	Forty years.....	7
Eight years.....	47	Forty-one years.....	3
Eight and two twelfths years.....	1	Forty-five years.....	2
Nine years.....	16	Forty-seven years.....	1
Ten years.....	140	Fifty years.....	7
Eleven years.....	5	Life.....	141
Twelve years.....	28	Under sentence of death.....	5
Thirteen years.....	5		
Fourteen years.....	32	Total.....	1,287
Fifteen years.....	27		

Number of Terms.

Prisoners serving first term.....	1,018
Prisoners serving second term.....	164
Prisoners serving third term.....	56
Prisoners serving fourth term.....	30
Prisoners serving fifth term.....	8
Prisoners serving sixth term.....	5
Prisoners serving seventh term.....	3
Prisoners serving eighth term.....	3
Total.....	1,287

Educational Abilities of Prisoners.

Read and write.....	947
Read but cannot write.....	220
Neither read nor write.....	120
Total.....	1,287

TABLE No. 5.

Age of Prisoners when Received.

Age.	No.	Age.	No.
Fourteen	1	Forty-five	16
Sixteen	11	Forty-six	21
Seventeen	8	Forty-seven	33
Eighteen	33	Forty-eight	13
Nineteen	46	Forty-nine	12
Twenty	39	Fifty	10
Twenty-one	37	Fifty-one	2
Twenty-two	70	Fifty-two	1
Twenty-three	80	Fifty-five	12
Twenty-four	59	Fifty-six	12
Twenty-five	64	Fifty-eight	10
Twenty-six	52	Fifty-nine	6
Twenty-seven	49	Sixty	2
Twenty-eight	38	Sixty-one	5
Twenty-nine	27	Sixty-two	2
Thirty	53	Sixty-three	2
Thirty-one	34	Sixty-four	1
Thirty-two	57	Sixty-five	2
Thirty-three	25	Sixty-six	4
Thirty-four	50	Sixty-seven	2
Thirty-five	22	Sixty-eight	6
Thirty-six	34	Seventy	2
Thirty-seven	32	Seventy-one	5
Thirty-eight	27	Seventy-two	3
Thirty-nine	31	Seventy-three	3
Forty	34	Seventy-four	3
Forty-one	26	Seventy-five	1
Forty-two	19		
Forty-three	15	Total	1,287
Forty-four	25		

TABLE No. 6.

Number of Prisoners from each County.

County.	No.	Per Cent.	County.	No.	Per Cent.
Alameda	50	4.00	Santa Barbara	21	1.68
Amador	5	.40	San Joaquin	45	3.60
Butte	24	1.92	Santa Clara	33	2.64
Calaveras	10	.80	San Francisco	387	29.00
Colusa	12	.96	Sutter	1	.08
Contra Costa	17	1.36	Sierra	4	.32
El Dorado	1	.08	San Luis Obispo	12	.96
Fresno	18	1.44	Sacramento	21	1.68
Humboldt	14	.12	Shasta	15	1.20
Inyo	1	.08	Solano	18	1.44
Kern	36	2.88	San Mateo	21	1.68
Kings	11	.88	Siskiyou	4	.32
Lake	10	.80	Santa Cruz	22	1.76
Los Angeles	124	9.92	Stanislaus	12	.96
Lassen	1	.08	San Diego	18	1.44
Marin	6	.48	Sonoma	25	2.00
Madera	1	.08	San Benito	11	.88
Merced	2	.16	Tehama	9	.72
Monterey	27	2.16	Tulare	19	1.52
Mendocino	20	1.60	Tuolumne	12	.96
Mariposa	5	.40	Ventura	15	1.20
Modoc	2	.16	Yolo	1	.08
Napa	28	2.24	Yuba	8	.64
Nevada	7	.56	Alaska	17	1.36
Orange	3	.24	Arizona	16	1.28
Placer	23	1.84			
Riverside	6	.48	Totals	1,287	100.00
San Bernardino	56	4.48			

TABLE No. 7.

Occupations of Prisoners when Received.

Occupation.	No.	Occupation.	No.
Actor	2	Mechanic	3
Architect	3	Machinist	28
Bookkeeper	24	Millwright	2
Brewer	2	Marble-cutter	1
Blacksmith	20	Merchant	2
Barkeeper	11	No occupation	53
Bricklayer	8	Plasterer	1
Butcher	5	Photographer	3
Baker	9	Printer	12
Brakeman	6	Physician	4
Barber	41	Porter	2
Confectioner	1	Painter	26
Compositor	4	Planeman	1
Carpenter	44	Plumber	11
Carriage-painter	4	Paperhanger	3
Carriage-trimmer	1	Peddler	4
Cook	77	Quarryman	2
Clerk	33	Rancher	17
Coach-driver	3	Railroadman	9
Cooper	2	Roofer	1
Cabinet-maker	3	Restaurant-keeper	3
Carver	4	Ship carpenter	4
Cracker-maker	1	Sign-painter	2
Cigarmaker	29	Sawyer	3
Dogtrainer	1	Shoemaker	33
Engineer (civil)	2	Stock-raiser	2
Engineer (mechanical)	3	Sailor	52
Engineer (stationary)	26	School-teacher	5
Electrician	9	Salesman	10
Farmer	47	Spinner	2
Filer and sawyer	5	Silk-weaver	3
Foundryman	2	Stenographer	2
Fireman	8	Saleslady	1
Florist	4	Sheepshearer	1
Fisherman	13	Smelter	1
Furniture-polisher	4	Stevedore	2
Glovemaker	10	Servant	9
Gas- and steam-fitter	4	Stonecutter	4
Herder	4	Sailor	5
Hostler	6	Telegrapher	5
Horseshoer	3	Tinsmith	6
Harness-maker	10	Teamster	49
Ironer	8	Veterinary surgeon	3
Ironmolder	8	Vaquero	40
Insurance agent	2	Wire-worker	2
Jockey	2	Washman	61
Journalist	3	Watchmaker	2
Laborer	121	Waiter	65
Laundryman	23	Woodturner	2
Lottery agent	1	Woodchopper	2
Musician	4	Weaver	3
Mattress-maker	1		
Miner	45	Total	1,287
Milliner	2		

TABLE No. 8.

Statement of Clothing, etc., Issued from July 1, 1894, to June 30, 1895.

	Pants	Shirts	Caps	Socks	Jumpers	Coats	Vests	Shoes	Boots and Shoes— to order	Boots and Shoes— Repairs	Slippers	Undershirts	Drawers	Blankets	Beds	Yards of Bed Tick- ing	Hickory Shirts	Pants	Coats	Vests	Shoes	Hats
1894.																						
July	204	166	119	361	63	7	14	143	12	134	4	192	183	4	98	328	14	27	25	26	37	30
Aug.	170	148	86	363	54	6	11	87	13	155	9	161	178	0	54	181	31	29	27	28	33	31
Sept.	248	214	120	481	87	3	2	179	8	178	0	231	249	0	0	0	20	35	32	32	50	40
Oct.	198	152	89	479	85	7	4	167	13	156	0	188	192	0	25	84	22	30	27	28	40	28
Nov.	182	154	68	373	99	13	8	120	8	209	8	189	199	0	0	0	28	35	35	34	38	31
Dec.	213	212	152	426	131	36	15	187	10	153	6	241	222	3	1	3 $\frac{1}{2}$	16	21	20	20	35	24
1895.																						
Jan.	213	224	138	438	132	22	6	190	15	238	1	266	264	42	63	211	16	29	29	28	30	21
Feb.	181	182	122	395	114	9	10	110	9	148	7	235	222	19	72	241	14	31	30	29	31	27
March	246	229	132	465	135	11	6	170	19	167	1	253	252	36	70	235	9	16	15	15	30	15
April	181	221	109	386	94	10	20	134	10	185	2	226	231	14	47	158	4	27	26	26	31	17
May	199	185	106	403	99	5	8	142	19	178	3	191	205	30	73	244 $\frac{1}{2}$	8	18	17	18	24	13
June	201	208	117	415	89	3	5	141	21	125	3	225	226	53	38	127	12	24	19	19	26	16
Totals	2,436	2,295	1,358	4,985	1,182	132	109	1,770	157	2,026	45	2,598	2,623	201	541	1,813	194	322	302	303	405	293

Manufactured for officers, guards, and employes: Pants, 49; coats, 43; vests, 36; pairs shoes, 50; and pairs shoes repaired, 360.

RESIDENT PHYSICIAN'S REPORT.

MEDICAL DEPARTMENT, CALIFORNIA STATE PRISON,)
SAN QUENTIN, July 1, 1895.)

HON. W. E. HALE, *Warden California State Prison at San Quentin:*

SIR: I have the honor to herewith submit my report, as Resident Physician, for the fiscal year ending June 30, 1895, together with such exhibits, in tabular form, as show the work done in this department for the period named.

There are few special features deserving mention herein which have not been referred to in my previous reports. Rigid cleanliness and good sanitation have, as usual, been valuable aids in preserving the health of the inmates. During the past year a durable and commodious shed has been erected in the prisoner's yard, which, besides sheltering the men from the storms of winter and the debilitating heat of summer, has also given them a place to rest when fatigued and unwell.

When it is borne in mind that a large percentage of the men committed to a penal institution are suffering from chronic ailments of some form or other—usually the result of previous vicious habits and unwholesome conditions of life—the mortality among the inmates must be regarded as reasonably low. Phthisis pulmonalis (consumption) has been, as heretofore, the principal cause of death, as will be seen by reference to Exhibit C. In nearly every instance, however, those who have died from this cause contracted the disease prior to their admission to the prison, and several were in the last stages of the disease when they entered the institution.

The terrible ravages of the opium habit among a certain class of the inmates is a subject which has engaged my especial attention during the past year, and I can state with much gratification that a large number of the worst cases have been treated successfully. Several "opium fiends" who, at the time treatment was begun, were well nigh physical and mental wrecks, have been reclaimed from the destructive vice, and are now restored to strong and vigorous manhood. All that is possible under the circumstances is being done to eradicate this health-destroying evil from the prison, and, thus far, the work has been attended by the most encouraging results.

The most important need at present in this department is that of more adequate accommodations for the insane. The prison hospital is

not provided with facilities for the treatment of this class of patients, and the exigencies of the situation demand that a prompt remedy be applied. As the conditions now exist, insane persons must necessarily be placed in the hospital wards among the sick and suffering patients, where, for obvious reasons, they assuredly ought not to be.

Upon one occasion, a few months ago, three insane patients were under treatment at the same time in the hospital, interfering immeasurably with the sick, occupying the unrelenting attention of the nurses, to the detriment and neglect of the other patients, and otherwise demoralizing the system of quiet and order which should prevail in a place of that character.

In my opinion, this is a subject requiring specific consideration, and I earnestly hope it will engage the prompt attention of those qualified to provide the remedy.

In conclusion, I beg leave to tender my grateful acknowledgments both to you and to the Honorable Board of Prison Directors, for the coöperation extended me in the management of this department.

Respectfully submitted.

I. L. R. MANSFIELD, M.D.,
Resident Physician.

EXHIBIT A.

Diseases Treated Each Month during the Fiscal Year ending June 30, 1895.

Diseases.	1894.						1895.						Total
	July	August	September	October	November	December	January	February	March	April	May	June	
Appendicitis.....	1												1
Abscess.....	1	3	1	1	1	1			1	3			12
Asthma.....	1	1	1	1	1	1	1	1	1	1	1	1	12
Bruised hip.....			1	1									2
Bronchitis.....					1	2	3	2	2	1	1	1	13
Boils.....							1	1		1	2	1	5
Bitten finger.....					1	1	1	1					4
Broken finger.....							1						1
Bruised foot.....									1	2		2	7
Catarrh.....	1	1	1	1					1	2		2	4
Cripple.....	1	1											2
Cold.....	2	2											4
Cramps.....	1	2	1	1	2	1	1	2	2		1	2	16
Carbuncle.....	1	1											2
Cough and debility.....	1	4	2	2	2	2	2	1	1	1			18
Congestion, lungs and fever.....									1				1
Constipation.....				1	1	1							3
Chills and fever.....									1				1
Diarrhœa.....	2	1		1	1	2	1			1	1		10
Dropsy.....									1				1
Dysentery.....								1	1	1			3
Debility from opium.....			1	1	1	1					1	1	6
Epilepsy.....	1	1	2	1	1	2	1	2	4	3	3	1	22
Earache.....					1	1						1	3
Fever, typhus.....	7	7	10	6	5	6	6	3	3	4	9	4	70
Fracture of leg.....	1	1	1									1	4
Fracture of nose.....												1	1
Fistula.....	2	1	1	1	1	1	1						8
General debility.....	8	7	5	11	12	6	10	14	12	11	14	14	124
Gastritis.....											1		1
Hemorrhage.....	4	2	1				1	2	6	10	4	3	33
Hip disease.....											1	1	2
Heart trouble.....	1			1	1								3
Hysteria.....			1										1
Hiccough.....							1						1
Hydrocele.....						1	1						2
Insanity.....	1	3	2	2	5	3	2	2	2	2	3	3	30
Inflammation of bowels.....							1		1				2
Kidney disease.....	1	1	1	1	1	1	1	1	2	1			11
La grippe.....	1	1							3	4	1	1	11
Mumps.....			1										1
Necrosis, bone of foot.....	1	1	1	1	1	1	1	1	1	1	1	1	12
Neuralgia.....								1	1	1			3
Opium habit.....	1	2	2	2	2	2	3	3	2	5	4	1	29
Paralysis, partial.....									1	2	1		4
Phthisis pulmonalis.....	6	5	5	2	1	3	5	2	3	3	2	2	39
Pleurisy.....	2		1				1						4
Passing gall stone.....		1											1
Polypus in nose.....						1	2						3
Piles.....						1	2	1					4
Rheumatism.....	4	2	3	3	5	10	9	8	7	5	3	3	62
Rupture.....	1	1	1	1	1	1	1	2	2	2	1		14
Syphilis.....	3	1	1	1	2	3	3	3	4	5	2	2	30
Scrofula.....	2	2	2	2	3	2	3	4	3	1	1	2	27
Stomatitis.....	1	1											2
Sore eyes.....	2	1	1	1	1	1				1			8
Sprains.....	2						2		2				6
Sore throat.....		1			2	1							4
Stomach trouble.....						1			1	1			3
Scald.....							1						1

REPORT OF STATE BOARD OF PRISON DIRECTORS.

EXHIBIT A—Continued.

Diseases.	1894.						1895.						Total
	July	August	September	October	November	December	January	February	March	April	May	June	
Stricture								2	1		1	1	5
Tonsilitis								1					1
Wounds	12	10	4	6	7	7	7	8	9	8	4	3	85
Unclassified	5	8	4	4	3	3	5	5	7	5	4	4	57
Totals	81	76	58	56	66	70	81	73	89	86	69	57	862
Monthly average													72

EXHIBIT B.

Number and Names of Prisoners who Died during the Year ending June 30, 1895, with Cause and Date of Death.

No.	Names.	Cause of Death.	Date of Death.
14793	Ham, Ah (Indian)	Heart failure	July 4, 1894
14742	Cuebus, Jesus	Phthisis pulmonalis	Aug. 13, 1894
13313	Cropsey, R. L.	Dysentery	Aug. 16, 1894
15174	Gunther, Frank	Dropsy and scrofula	Aug. 18, 1894
14959	Jackson, Frank (Negro)	Wound, knife	Aug. 20, 1894
15464	Hawthorne, J.	Passing gall stone	Aug. 29, 1894
15434	James, Ed. (Negro)	Phthisis pulmonalis	Sept. 27, 1894
14162	Wilson, Henry	Hemorrhage of lungs	Dec. 16, 1894
14308	Wilson, M. (Indian)	Phthisis pulmonalis	Dec. 30, 1894
13309	Grajida, A.	Phthisis pulmonalis	Jan. 1, 1895
11523	McIntyre, P. (Indian)	Phthisis pulmonalis	Jan. 17, 1895
15471	Tom, No. 1 (Indian)	Phthisis pulmonalis	Jan. 30, 1895
15104	Emely, James (Negro)	Suicide	Feb. 6, 1895
16145	Maldonado, Vic.	Phthisis pulmonalis	Feb. 14, 1895
15784	Wasmas, R.	Bronchitis	Mar. 10, 1895
14657	Allen, H. (Negro)	Dropsy and heart failure	Mar. 11, 1895
6883	Hall, Peter	Inflammation of stomach and bowels	Mar. 17, 1895
15834	Pretta, Francisco	Phthisis pulmonalis	Mar. 22, 1895
16160	Broderick, Wm.	Fever and congestion of lungs	Mar. 22, 1895
12057	Johnson, John	General debility (old age)	Mar. 28, 1895
16273	Loo Leung (Chinese)	Phthisis pulmonalis	April 3, 1895
15668	Walker, J. M. (Indian)	Phthisis pulmonalis	April 27, 1895
15432	Hammond, J. (Indian)	Phthisis pulmonalis	May 9, 1895
10461	Soto, Jose De la Cruz	Gastritis	May 30, 1895
16016	Azoff, Anthony	Executed	June 7, 1895
16287	Garcia, Emelio	Executed	June 7, 1895
16258	Collins, Patrick	Executed	June 7, 1895
16058	Sackett, A.	Cerebral meningitis	June 17, 1895

EXHIBIT C.

Number of Deaths in each Month, with Classified Totals, etc.

Cause of Death.	1894.						1895.						Total.
	July	August	September	October	November	December	January	February	March	April	May	June	
Bronchitis									1				1
Dysentery		1											1
Dropsy and scrofula		1											1
Dropsy and heart failure									1				1
Executed												3	3
Fever and congestion of lungs								1					1
Gastritis											1		1
General debility (old age)									1				1
Heart failure	1												1
Hemorrhage						1							1
Inflammat'n, stomach and bowels									1				1
Passing gall stone		1											1
Phthisis pulmonalis		1	1			1	3	1	1	2	1		11
Suicide								1					1
Wound, knife		1											1
Cerebral meningitis												1	1
Totals	1	5	1	0	0	2	3	2	6	2	2	4	28

EXHIBIT D.

Résumé of Work in Medical Department during Year.

Month.	Visits to Physician	Daily Average	Visits to Cells	Daily Average	Excused from Work	Daily Average	Monthly Admissions to Hospital	Monthly Discharges from Hospital	Monthly Invalid List	Monthly Deaths
1894—July	2,731	109	178	7	656	26	19	25	32	1
August	2,807	104	130	5	700	26	25	25	20	5
September	2,466	98	128	5	315	13	19	21	16	1
October	2,447	90	118	4	419	15	18	15	17	0
November	2,201	85	83	3	265	10	13	13	26	0
December	2,225	89	123	5	254	10	20	16	22	2
1895—January	2,520	101	171	7	428	17	22	18	27	3
February	2,334	101	116	5	429	19	15	14	27	2
March	2,857	110	334	13	877	33	25	20	29	6
April	2,764	111	175	7	474	19	20	21	33	2
May	2,221	85	94	3	376	14	24	25	21	2
June	1,975	79	103	4	349	14	18	20	18	4

CHAPLAIN'S REPORT.

SAN QUENTIN, CAL., June 30, 1895.

To the Warden and Board of Directors, State Prison, San Quentin, Cal.:

GENTLEMEN: I beg to submit herewith the annual report of the Resident Chaplain, State Prison, San Quentin, Cal., dating from June 30, 1894, to June 30, 1895.

There have been received in the Library of the prison, within those dates, the following number of books, papers, and magazines, etc., obtained from various sources, viz.: 637 bound volumes, 1,496 magazines, and about 6,746 papers. Many of the better class of magazines and scientific papers have been bound and added to the permanent library. About 175 volumes of books, suitable for boys, have also been gathered and donated by this office to the Preston School of Industry, Ione, Cal.

There have been bound and repaired in the prison bindery, about 460 volumes, together with much work done for other departments of the prison.

The number of books issued to prisoners during the year is as follows: From the General Library, 15,378 books; from the Catholic Department, 7,099; total, 22,468 volumes.

Regular Sabbath services have been held every Sabbath, with the usual attendance and interest. To supplement the same, not a few who have given evidence of a better life and willingness to work, have been found employment in various ways under the auspices and practical coöperation of Salvation Army auxiliaries, with whom we keep more or less in touch, and who are reported, with rare exceptions, as doing well.

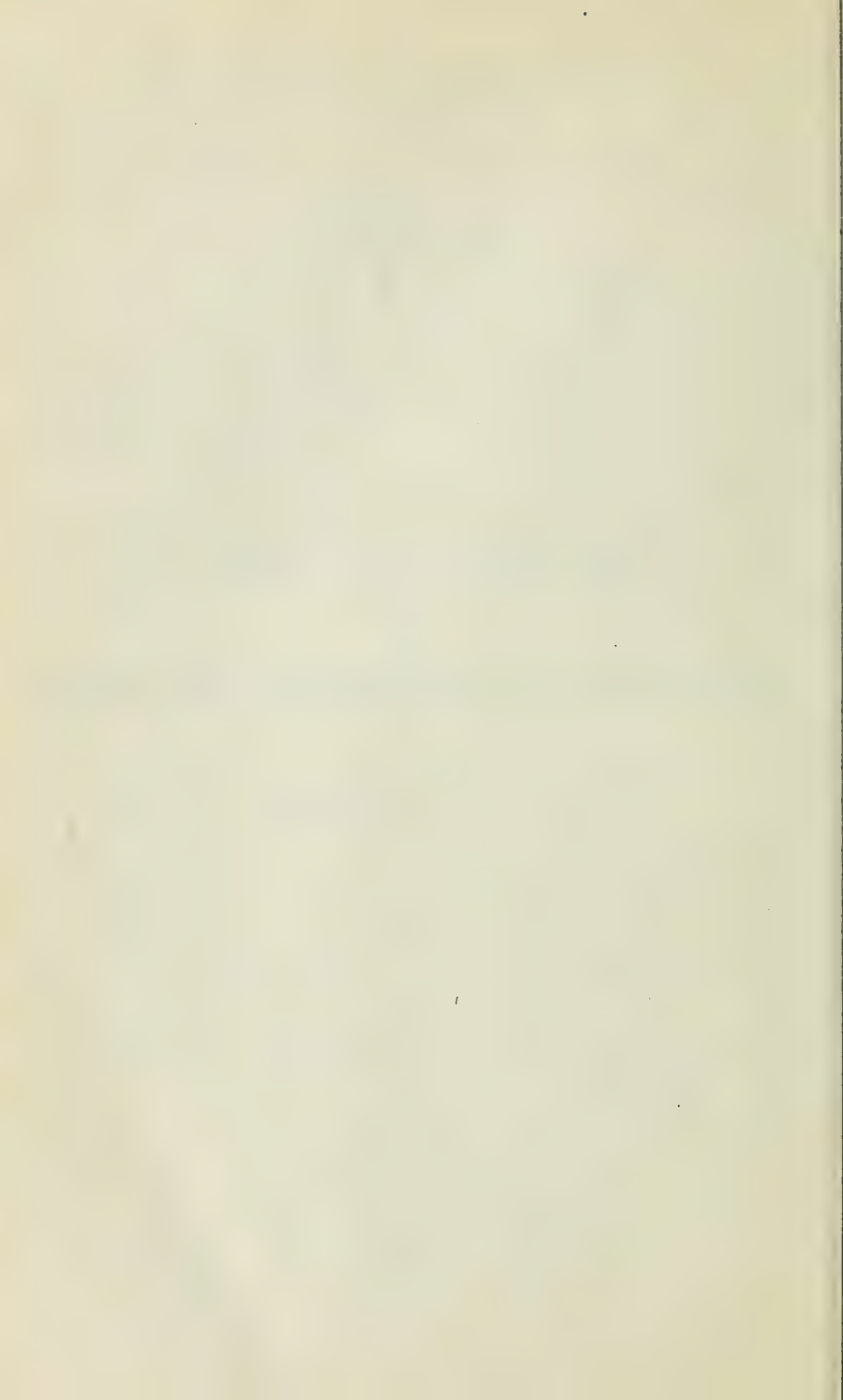
There have been twenty-one burials.

The thanks of the Chaplain are due for the uniform kindness and courtesy of the Warden and his officers.

A. DRAHMS,
Chaplain, etc.

REPORT OF THE WARDEN
OF THE
STATE PRISON AT SAN QUENTIN, CALIFORNIA.

FOR THE YEAR ENDING JUNE 30, 1896.



WARDEN'S REPORT.

WARDEN'S OFFICE,
SAN QUENTIN PRISON, August 1, 1896. }

To the Honorable the State Board of Prison Directors:

GENTLEMEN: I have the honor to herewith submit my report for the forty-seventh fiscal year, ending June 30, 1896; also, reports of the Clerk of the Prison, showing, in the form of tabular statements, the financial transactions of the prison for the past year, accompanied by the yearly reports of the Captain of the Yard, the Turnkey, the Physician, and the Chaplain and Librarian.

JUTE DEPARTMENT.

The following is the report of the workings of the Jute Mill for the forty-seventh fiscal year, ending June 30, 1896:

MANUFACTURING STATEMENT OF JUTE DEPARTMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1896.

Raw jute on hand July 1, 1895	5,061 bales.	
Raw jute received since	6,490 bales.	
	<hr/>	
	11,551 bales.	
Less rejected on account of damage	1 bale.	
	<hr/>	
	11,550 bales.	
Less amount on hand June 30, 1896	4,765 bales.	
	<hr/>	
	6,785 bales.	
6,785 bales, at 400 lbs., equals		2,714,000 lbs.
Deduct increase in amount of raw jute in process of manufacture on June 30, 1896	86,110 lbs.	
Over amount on July 1, 1895	82,362 lbs.	
	<hr/>	
		3,748 lbs.
Net amount of raw jute used during year		2,710,252 lbs.

GOODS MANUFACTURED.

13,357 cuts 45-inch burlap = 1,312,859 yds., at 11 $\frac{3}{4}$ ozs. av. weight ..	957,293 lbs.
6,253 cuts 45-inch burlap = 614,572 yds., at 11 $\frac{3}{4}$ ozs. av. weight ..	427,320 lbs.
12,814 cuts 45-inch burlap = 1,228,516 yds., at 11 $\frac{3}{4}$ ozs. av. weight ..	871,479 lbs.
2,518 cuts 45-inch sugar bagging = 237,395 yds., at 13 $\frac{5}{16}$ ozs. av. weight ..	199,561 lbs.
32 cuts 37-inch burlap = 3,040 yds., at 8 ozs. av. weight	1,520 lbs.
119 cuts 35-inch ore bagging = 11,428 yds., at 13 $\frac{1}{2}$ ozs. av. weight ..	9,642 lbs.
Twine sold and issued	7,425 lbs.
Twine used in sewing 2,541,886 grain bags, at $\frac{25}{160}$ oz.	39,717 lbs.
Twine used in sewing 277,210 grain bags, at $\frac{25}{160}$ oz.	6,064 lbs.
Twine used in sewing 17,000 imperfect bags, at $\frac{25}{160}$ oz.	266 lbs.
Twine used in sewing 208,400 sugar bags, at $\frac{35}{160}$ oz.	4,559 lbs.
Twine used in sewing 12,500 ore bags, at $\frac{30}{160}$ oz.	234 lbs.
Twine used in baling 6,136 bales goods, at 10 oz.	3,835 lbs.
	<hr/>
Total weight of goods manufactured	2,528,915 lbs.
Loss in manufacturing 2,710,252 lbs. jute	181,337 lbs.
Or 6.691%.	

Note.—To calculate cost price of goods, 7.17% must be added to weight of goods required to equalize 6.691% loss on material used.

SPINNING AND WEAVING EXPENSES.

Coal	\$18,739 41	
Jute oil	2,784 55	
Sizing	1,542 45	
Machine oils and engine supplies	1,000 80	
Tools and repairs	12,792 45	
Salaries	20,982 35	
Water	747 45	
Miscellaneous	1,184 93	
Dye stuffs	140 31	
		\$59,914 70
Less expenses incurred in sewing of bags and keeping sewing-		
machines in repair, say—		
5% of coal	\$936 97	
5% of sizing	77 12	
5% of machine oils, etc.	50 04	
5% of tools and repairs	639 62	
5% of salaries	1,049 12	
5% of water	37 37	
5% of miscellaneous	59 25	
		2,849 49
Net expense of spinning and weaving 3,407,810 yds. cloth		\$57,065 21
Or $1\frac{17}{1000}$ cents per yard.		

SEWING EXPENSES.

Percentage of gross spinning and weaving expense, as per state-		
ment above	\$2,849 49	
50,840 lbs. of jute twine, at \$3 30	1,677 72	
Total expense of sewing 3,056,996 bags		\$4,527 21
Or $1\frac{48}{1000}$ cent per bag.		

COST PRICE OF GOODS MANUFACTURED DURING THE YEAR.

45-inch Burlap—Grain.

11 $\frac{44}{100}$ ozs. of jute, at 2.736 cents per lb.	1.95624	cents.
Allowance of 7 $\frac{17}{100}$ % to cover waste on material used	0.14026	cent.
Cost of spinning and weaving	1.6746	cents.
Cost per yard	3.7711	cents.

45-inch Burlap—Sugar.

13 $\frac{45}{100}$ ozs. of jute, at 2.736 cents per lb.	2.30	cents.
Allowance of 7 $\frac{17}{100}$ % to cover waste on material used	0.165	cent.
Cost of spinning and weaving	1.6746	cents.
Cost per yard	4.1396	cents.

37-inch Burlap—8 oz.

8 ozs. of jute, at 2.736 cents per lb.	1.368	cents.
Allowance of 7 $\frac{17}{100}$ % to cover waste on material used	0.0981	cent.
Cost of spinning and weaving	1.6746	cents.
Cost per yard	3.1407	cents.

35-inch Ore Bagging.

13 $\frac{1}{2}$ ozs. of jute, at 2.736 cents per lb.	2.3085	cents.
Allowance of 7 $\frac{17}{100}$ % to cover waste on material used	0.1655	cent.
Cost of spinning and weaving	1.6746	cents.
Cost per yard	4.1486	cents.

22x36 Grain Bags.

39½ inches 45-inch burlap, at 3.7711 cents per yd.	4.1378	cents.
Sewing	0.1481	cent.
Cost loose	4.2859	cents.
Baling	0.0636	cent.
Cost in bale	4.3495	cents.
Shipping	0.0608	cent.
Cost delivered in San Francisco	4.4103	cents.

22x36 Sugar Bags.

39½ inches 45-inch sugar bagging, at 4.1396 cents per yd.	4.542	cents.
Sewing	0.1481	cent.
Cost loose	4.6901	cents.
Baling	0.0669	cent.
Cost in bale	4.757	cents.
Shipping	0.0608	cent.
Cost delivered in San Francisco	4.8178	cents.

17x28 Ore Bag.

32 inches 35-inch ore cloth, at 4.1486 cents per yd.	3.6877	cents.
Sewing	0.1481	cent.
Cost loose	3.8358	cents.
Baling	0.0636	cent.
Cost in bale	3.8994	cents.
Shipping	0.0608	cent.
Cost delivered in San Francisco	3.9602	cents.

BALING EXPENSES.

Grain Bags.

4½ yds. 45-inch burlap, at 3.7711 cents per yd.	16.97	cents.
10 ozs. jute twine, at 3.30 cents per lb.	2.06	cents.
24 ozs. manilla rope, at 8½ cents per lb.	12.75	cents.
Total per bale	31.78	cents.
Or per bag (500 in a bale)	0.0636	cent.

Sugar Bags.

4½ yds. 45-inch sugar bagging, at 4.1396 cents per yd.	18.628	cents.
10 ozs. of jute twine, at 3.30 cents per lb.	2.06	cents.
24 ozs. of Manilla rope, at 8½ cents per lb.	12.75	cents.
Total per bale	33.438	cents.
Or per bag (500 in a bale)	0.0669	cent.

SHIPPING EXPENSES.

Drayage credited to Stock Department, \$35 per month on say 650 bales goods (per bale)	5.4	cents.
Freight per steamer to San Francisco (per bale)	25.0	cents.
Total (per bale)	30.4	cents.
Or per bag (500 in a bale)	0.0608	cent.

TOTAL OPERATING COST OF JUTE MILL FOR THE YEAR ENDING JUNE 30, 1896.

Total expenses incurred, including value of supplies on hand

July 1, 1895:

Raw jute	\$127,469 60	
Raw jute in process of manufacture	2,877 20	
Coal	18,739 41	
Jute oil	3,004 57	
Sizing	1,586 41	
Rope (bale)	707 75	
Machine oils and engine supplies	1,049 82	
Tools and repairs	18,170 69	
Salaries	20,982 35	
Water	747 45	
Miscellaneous	1,191 01	
Freight on manufactured goods	1,414 68	
		\$197,940 94

Less value of supplies on hand June 30, 1896, as per inventory:

Raw jute	\$53,214 53	
Raw jute in process of manufacture	2,761 01	
Jute oil	220 02	
Sizing	43 96	
Rope	5 10	
Machine oils, etc.	49 02	
Tools and material for repairs	5,378 24	
Miscellaneous	6 08	
		61,677 96

Net operating cost for the year

Divided as follows:

Value of raw jute used

Less increase in value of raw jute in process of manu-

facture

Net value of raw jute used

Spinning and weaving expenses

Sewing expenses (not including value of jute twine used)

Rope used for baling

Freight on manufactured goods

\$136,262 98

GOODS SOLD DURING THE YEAR ENDING JUNE 30, 1896.

33,783	22 x 36 grain bags	@ \$0 04½	\$1,520 25
2,123,713	22 x 36 grain bags	04½	89,196 07
5,000	22 x 36 grain bags	04¾	237 50
1,500	22 x 36 grain bags	05	75 00
15,000	imperfect bags	03¾	562 50
1,000	imperfect bags	04	40 00
3	bags		15
20,400	22 x 36 sugar bags	05½	1,040 40
45,000	22 x 36 sugar bags	05½	2,520 00
200,000	22 x 36 sugar bags*	05½	11,000 00
12,000	17 x 28 ore bags	05	600 00
151½	yds. 32-inch carder cloth	08	12 12
200	yds. 35-inch ore cloth	05¼	10 50
3,040	yds. 37-inch burlap, 8 oz.	03¼	98 80
200	yds. 45-inch burlap	04½	9 00
5,261½	yds. 45-inch burlap	05	263 08
28	yds. 45-inch burlap	09	2 52
4	bean sheets, 50 x 50	17 00	68 00
2	bean sheets, 40 x 50	13 50	27 00
1	bean sheet, 45 x 45		14 25
3,514	lbs. 3-ply twine	07	245 98
3,779	lbs. 8-ply twine	05½	207 85
5,700	lbs. rope waste	01½	85 50
44,870	lbs. rope waste	00½	224 35
6,010	lbs. yarn waste	00½	30 05
2,130	lbs. manilla rope waste	00½	10 65
11,310	lbs. loom waste	01	113 10

Carried forward

\$108,214 62

Brought forward \$108,214 62

Issued and Charged to Departments of the Prison.

366 yds. 45-inch burlap	\$0 05	18 31
21 yds. 32-inch carder cloth	08	1 68
62 lbs. 3-ply twine	05	3 10
20 lbs. 8-ply twine	05	1 00
50 lbs. 5-ply twine	05	2 50

\$108,241 21

*Less 57,000 22 x 36 sugar bags entered as sold and not yet
manufactured on June 30, 1896 05½ 3,135 00

Net sales for the year \$105,106 21

PROFIT AND LOSS ACCOUNT.

Net operating expenses	\$136,262 98	
Value of goods on hand July 1, 1895	122,957 22	\$259,220 20

Deduct:

Sales of manufactured goods during the year	\$105,106 21	
Value of goods on hand June 30, 1896, at cost price	141,825 54	246,931 75

Net loss on goods sold during the year \$12,288 45

BAG ACCOUNT.

22 x 36 Grain Bags.

On hand unsold on July 1, 1895	2,505,500
Manufactured during the year	2,819,096

5,324,596

Sold during the year 2,163,996

Remaining on hand unsold on June 30, 1896 3,160,600

Imperfect Bags.

On hand unsold on July 1, 1895	15,000
Manufactured during the year	17,000

32,000

Sold during the year 16,000

Remaining on hand unsold on June 30, 1896 16,000

22 x 36 Sugar Bags.

Sold during the year	265,400
Manufactured during the year	208,400

To be manufactured after June 30, 1896, to fill orders entered as sold 57,000

17 x 28 Ore Bags.

Manufactured during the year	12,500
Sold during the year	12,000

Remaining on hand unsold on June 30, 1896 500

INVENTORY OF STOCK OF MATERIALS AND MANUFACTURED GOODS IN
JUTE DEPARTMENT, JUNE 30, 1896.

Raw Jute.

1,000 bales Bullub in circle,	at 400 lbs. = 400,000 lbs. @ 2.775c.	\$11,100 00
983 bales Bullub in circle,	at 400 lbs. = 393,200 lbs.	2.85c. 11,206 20
110 bales Rajendra in circle,	at 400 lbs. = 44,000 lbs.	2.78c. 1,223 20
527 bales S S S in circle,	at 400 lbs. = 210,800 lbs.	2.90c. 6,113 20
1,000 bales Dutt M in circle,	at 400 lbs. = 400,000 lbs.	2.64c. 10,560 00
968 bales Dutt M in circle,	at 400 lbs. = 387,200 lbs.	2.85c. 11,035 20
177 bales assorted jute in mill,	at 400 lbs. = 70,800 lbs.	2.792c. 1,976 73

4,765 bales \$53,214 53

Brought forward \$53,214 53

Raw Jute in Process of Manufacture.

14,598 lbs. carding, drawing, and roving	@ 3.20c.	\$476 14
396 lbs. spun yarn on bobbins	3.25c.	12 87
547 lbs. spun yarn on spools	3.30c.	18 05
8,100 lbs. spun yarn in cops	3.30c.	267 30
26,178 lbs. spun yarn in warp	3.35c.	876 96
5,331 lbs. partially finished cloth on looms	3.45c.	183 92
3,960 lbs. twine	3.30c.	130 68
27,000 lbs. thread waste, to be worked up	2.792c.	753 84
86,110 lbs.		\$2,710 76

30 lbs. aniline blue	@ \$1 15	34 50
15 lbs. aniline red	1 05	15 75

2,761 01

Jute Oil.

440 gals. natural whale oil	@ \$0 26½	\$116 60
880 gals. mineral oil	10 ² / ₁₀	95 92
50 gals. mixed oil	15	7 50

220 02

Sizing Materials.

16 bbls. flour	@ \$2 30	\$36 80
50 lbs. tallow	04½	2 06
50 lbs. glue	07	3 50
20 lbs. C. O. soap	02 ²⁵ / ₁₀₀	59
15 lbs. paraffine wax	06¾	1 01

43 96

Rope.

60 lbs. 8-ply manilla bale rope	@ \$0 08½	\$5 10
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5 10

Machine Oils and Engine Supplies.

78 gals. spindle oil	@ \$0 16½	\$12 87
30 gals. special shafting oil	16½	4 95
51 gals. coal oil	17½	8 92
3 gals. boiled linseed oil	67	2 01
3 gals. neatsfoot oil	54	1 62
5 gals. lard oil	63	3 15
3 gals. cylinder oil	37	1 11
150 lbs. rosin	01½	2 25
100 lbs. whiting	01	1 00
25 lbs. hemp packing	30	7 50
5 lbs. American graphite	20	1 00
20 lbs. Albany compound	13 ² / ₁₀	2 64

49 02

Material for Repairs and Tools.

20 % of extra parts of machinery of all kinds, as per bill of Union Iron Works, February, 1893 = \$10,664 25		\$2,132 85
12 lbs. lace leather	@ \$0 42½	5 10
10 ft. leather belting, 10-inch, double	1 20	12 00
50 ft. leather belting, 7-inch, single	36	18 00
100 ft. leather belting, 4-inch, single	24	24 00
85 ft. leather belting, 3-inch, single	17	14 45
24 ft. leather belting, 2½-inch, double	26	6 24
28 sets loom harness	4 50	126 00
262 mesquite friction rollers	01	2 62
3,100 loom pickers	@ \$2 30 per doz.	594 17
1,125 porcelain shuttle eyes	1 30 per 100	14 62
2,300 birch spinning bosses	11 00 per 100	253 00
120 birch spinning bosses	13 00 per 100	15 60
100 reeds	@ \$1 50	150 00
260 new shuttles	50	130 00
1,310 new shuttles in process	25	327 50
84 roving gill bars	18	15 12
148 drawing gill bars	36	53 28
1,584 yds. spindle banding, 2-inch	04½	65 34

Carried forward \$3,959 89 \$56,293 64

Brought forward.....		\$3,959 89	\$56,293 64
720 yds. spindle banding, 1½-inch.....	@ \$0 03¾	26 10	
25 yds. sluice cloth.....	80	20 00	
226 assorted card pins.....	90	203 40	
222 assorted gill pins.....	85	188 70	
2 gals. turpentine.....	43	86	
1½ gal. japan.....	85	43	
10 lbs. cabinet glue.....	07	70	
65 lbs. assorted belt rivets, copper.....	25	16 25	
50 lbs. Bessemer steel wire.....	25	12 50	
34 lbs. babbitt-metal.....	27	9 18	
40 lbs. red lead.....	05¼	2 10	
50 lbs. cotton sewing twine.....	20	10 00	
10 lbs. cotton seine twine.....	19¾	1 98	
50 lbs. galvanized boat nails.....	08½	4 25	
50 lbs. metallic paint.....	02	1 00	
50 lbs. white lead.....	05¼	2 63	
6 lantern burners.....	11	66	
7 baling needles.....	05	35	
11 mattress needles.....	15	1 65	
72 bolt rope needles.....	02	1 44	
54 Mooney machine needles.....	12½	6 75	
12 Chase's oilers.....		1 10	
36 Chase's oiler-spouts.....	01	36	
2 revolving punch tubes.....	05	10	
18 quires emory cloth.....	45	8 10	
15 quires sandpaper.....	11¼	1 69	
4 papers copper tacks.....	20	80	
10 papers cut tacks.....	05	50	
500 carriage bolts, assorted.....	01	5 00	
2,600 tire bolts, assorted.....	00½	13 00	
12 shoe knives.....	15	1 80	
1 spring revolving punch.....		1 00	
1 machinist's hammer.....		75	
8 wood rasps, 14-inch.....	40	3 20	
120 files, assorted.....	15	18 00	
1 Coe's wrench, 8-inch.....		45	
1 Coe's wrench, 21-inch.....		1 50	
4 drive punches.....	15	60	
3 gimlet bits.....	05	15	
3 whetstones.....	50	1 50	
555 lbs. cast steel, assorted.....	06½	36 08	
26 lbs. sheet steel.....	25	6 50	
100 lbs. cast steel wire.....	25	25 00	
130 lbs. scissor steel wire.....	20	26 00	
100 lbs. needle steel wire.....	60	60 00	
321 lbs. machine steel.....	04	12 84	
351 lbs. Norway iron.....	03¾	11 41	
1,521 lbs. refined iron.....	02	30 42	
692 lbs. castings, finished.....	03	20 76	
2,173 lbs. castings, unfinished.....	02½	54 33	
103 lbs. brass castings, unfinished.....	15	15 45	
85 lbs. brass castings, finished.....	20	17 00	
300 lbs. iron rivets, assorted.....	07	21 00	
75 lbs. set screws, assorted.....	20	15 00	
25 lbs. cap screws, assorted.....	10	2 50	
100 lbs. bolts, assorted.....	06	6 00	
50 lbs. nuts, assorted.....	05	2 50	
50 lbs. washers, assorted.....	05	2 50	
678 lbs. truck wheel castings.....	03	20 34	
12 sewing-machine chains.....	1 00	12 00	
19 sewing-machine needles, spiral.....	2 50	47 50	
12 sewing-machine needles, Mooney.....	1 00	12 00	
24 knotting scissors.....	50	12 00	
17 sewing-machine rollers.....	1 50	25 50	
150 lbs. roving.....	26	39 00	
212 assorted files.....	15	31 80	
4 lbs. emory flour.....	08	32	
2 lbs. spelter.....	10	20	
4 lbs. potash.....	10	40	
4 lbs. soda.....	02	08	
7 lbs. borax.....	06	42	
5 lbs. welding compound.....	20	1 00	
½ lb. oxide of iron.....		10	
Carried forward.....		\$5,098 37	\$56,293 64

Brought forward.....		\$5,098 37	\$56,293 64
5 hammer handles.....	@ \$0 05	25	
6 sledge handles.....	10	60	
1 dusting brush.....		25	
2 sheepskin aprons.....	50	1 00	
4 gals. coal oil.....	17½	70	
2 gals. lard oil.....	63	1 26	
3 2-ft. rules.....	16	48	
4 lbs. copper wire.....	20	80	
50 lbs. soap.....	02 ⁵⁵ / ₁₀₀	1 98	
130 lbs. antimony.....	12 ² / ₁₀₀	15 86	
150 lbs. scrap brass.....	10	15 00	
¼ bbl. sea coal.....		75	
½ bbl. black lead.....		3 00	
100 lbs. limestone.....	02	2 00	
500 lbs. pig iron.....		7 50	
144 ft. 2-inch iron pipe.....	08½	12 24	
1,872 ft. 1-inch iron pipe.....	03 ⁸ / ₁₀	73 01	
9 ft. 4-inch galvanized pipe.....	40	3 60	
50 lbs. pipe fittings.....	10	5 00	
25 sheets tin XXXXXX, 28 x 66 = 395 lbs.	08¾	34 56	
⅓ box tin X, 14 x 20.....		2 50	
⅔ box tin XX, 14 x 20.....		6 00	
⅓ box tin XXX, 14 x 20.....		4 00	
4 sheets galvanized iron No. 26, 28 x 70 = 50 lbs.	04¾	2 19	
1 bdle. bright iron wire.....		1 73	
½ pa. 1-lb. tinned rivets.....		06	
½ pa. 2-lb. tinned rivets.....		09	
½ pa. 4-lb. tinned rivets.....		17	
½ pa. 5-lb. tinned rivets.....		20	
25 lbs. solder.....	11	2 75	
6 lbs. muriatic acid.....	25	1 50	
8 sks. charcoal.....	43	3 44	
2 lbs. sal ammoniac.....	20	40	
Assorted lumber in carpenter-shop.....		50 00	
Assorted nails, screws, and hardware.....		25 00	
			5,378 24

Miscellaneous.

2 lbs. lampblack.....	@ \$0 09	\$0 18
½ doz. mill brooms.....		1 50
1 case Metropolitan toilet paper.....		3 45
1 box red chalk.....		40
½ box white crayons.....		25
6 marking brushes.....		30

6 08

Manufactured Goods.

341,504 22 x 36 grain bags, baled.....	@ 4.8188c.	\$16,456 39
2,808,596 22 x 36 grain bags, baled.....	4.3495c.	122,159 88
10,500 22 x 36 grain bags, sewn.....	4.2859c.	450 02
30,000 22 x 36 grain bags, hemmed.....	4.1378c.	1,241 34
16,000 imperfect bags, baled.....	4.3495c.	695 92
550 imperfect bags, hemmed.....	4.1378c.	22 76
500 17 x 28 ore bags, baled.....	3.8994c.	19 50
3,200 22 x 36 sugar bags, hemmed.....	4.542 c.	145 34
138 cuts 45-inch burlap = 13,303 yds.	3.7711c.	501 67
34 cuts 45-inch sugar bagging = 3,206 yds.	4.1396c.	132 72
		141,825 54
Total.....		\$203,503 50

As you will perceive, we sustained a considerable loss on the jute goods sold during the past year. There are a number of causes which combined to make the loss unavoidable. In the first place, the Wilson tariff bill, which went into effect two years ago, placed grain bags made in foreign countries on the free list, and while this had the effect of reducing the price of such bags imported in 1895, it does not appear to have had the same effect upon the price at which the raw material could then be obtained. Jute purchased in 1894, out of which were

manufactured the bags we made up to the end of the year ending June 30, 1895, commanded a higher average price than it had for several years previous, and since then we have purchased jute at much lower prices.

The selling price of the prison bags in 1894 was $5\frac{1}{4}$ cents, and at that figure a small profit was made, even at the high price we had to pay for the raw material. For the season of 1895, however, bags were imported from Calcutta at a greatly reduced figure, and while your honorable Board endeavored to keep up the price so as to save this institution from loss, fixing it first at 5 cents, then reducing it to $4\frac{1}{2}$, and at last to 4.20 cents, the bag dealers and brokers of San Francisco managed to undersell us all along, and the consequence was, that farmers did not place their orders with us; our sales did not equal our manufacture, and we were left at the end of the forty-sixth fiscal year, ending June 30, 1895, with a stock of unsold bags on hand amounting to 2,500,000. Moreover, the grain crop of 1895 was not up to the average, and as imports of bags for that year were more than sufficient to supply the demand, by the time your honorable Board reduced the price of our bags to meet the market rates, the demand had about ceased, and we could dispose of but a small quantity in the latter part of the season.

At the beginning of the current year, your honorable Board fixed the price of our bags at about the same figure at which Calcutta bags could be purchased, and notwithstanding the disadvantages under which we are compelled to sell in the face of the most active competition of bag dealers and importers, we succeeded in disposing of over 2,000,000 bags up to the end of this fiscal year.

One of the most serious drawbacks we have to contend against in making ready sales of our bags is the law passed by the Legislature in 1893, commonly known as the "Ostrom Act," which reads as follows:

CHAPTER XLII.

AN ACT FIXING THE PRICE AND CONDITIONS OF SALE AT WHICH JUTE GOODS SHALL BE SOLD BY THE STATE.

[Approved February 27, 1893.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. It shall be the duty of the State Board of Prison Directors, from time to time, to fix the price, and to give public notice of the same, at which jute goods shall be sold by the State, but at no time shall the price fixed be more than one cent per bag in excess of the net cost of producing the same, exclusive of prison labor; and it is made the duty of State Prison authorities to confine the sale of jute goods to consumers direct, but no order shall be filled for any one individual or firm, during any one year, for more than five thousand grain bags, except on request of the Warden and the unanimous approval of the State Board of Prison Directors.

SEC. 2. Demands for jute goods by consumers shall be promptly filled in the order in which they are made; but when the supply is short, demands shall be registered at the prison in the order of their arrival, and filled from the output of the jute mill in the order of registration; *provided*, that on and after the fifteenth day of June of each year,

by and with the consent of a majority of the Board of Prison Directors, the Warden may fill orders for larger quantities to actual consumers, as they may, in their judgment, deem expedient; *provided*, that orders of farmers shall take precedence over all others; *provided further*, that ten per cent of the purchase price shall accompany each order, and the remaining portion must be paid upon delivery of the goods.

SEC. 3. All orders for jute goods must be accompanied by an affidavit setting forth that the amount of goods contained in the order are for individual and personal use of the applicant, said affidavit to be subscribed and sworn to before some Notary Public, or by a Justice of the Peace residing in the township in which the applicant resides; *provided*, that any applicant, as heretofore provided for, who falsely and fraudulently procures jute goods under the provisions of this Act, shall be guilty of a misdemeanor.

SEC. 4. This Act shall take effect immediately.

While this law evidently was intended for their benefit, yet a great many farmers most strenuously object to it, and in particular to Section 3, which requires an affidavit to be filed with each order. In many instances it is a great inconvenience for a farmer to make a special trip of perhaps twenty or thirty miles in order to find a notary before whom to make such affidavit; and while many of them consider the bags made at the prison as superior, and would use them in preference to any others, they will not order them, but purchase Calcutta bags, sometimes at a higher figure, rather than make the affidavit.

The general depression of business, and low prices for wheat which have prevailed during the past two years, also had a most pronounced effect against the operation of the law.

Farmers as a rule have not made any profit on their crops during that period, and consequently had no ready money when the time came for them to provide themselves with bags for this season; therefore, they were obliged to look to the merchants, banks, and warehousemen for money, if they desired to use and purchase the prison bags; but as most of the merchants in the interior handle Calcutta bags for San Francisco firms, the farmers were, most naturally, easily induced to use the Calcutta product. Owing to this scarcity of ready money, many farmers who really prefer our bags were thus prevented from ordering and using them.

The low price fixed by your honorable Board, and to which you adhered all through the season, has, however, had a most decided tendency to prevent San Francisco dealers from raising the price of imported bags. This they were undoubtedly prepared to do, as the imports for this season were just about sufficient to supply the demand, and there is no doubt that a higher price would have been asked if the prison authorities had shown the slightest disposition to start such an advance. Keeping down the price as we did, prevented the dealers from forming combinations with a view to advance the market, and in order to get rid of their stock importers were obliged to sell their bags at such low prices that they realized but a very small, if any, profit.

Thus, our loss this year has been really, and in fact has been, a gain

and benefit to the farming community of the State, as, had we fixed a higher price, the market for Calcutta bags would also have been advanced, and all the farmers would have been obliged to pay a higher price for their bags, no matter what kind they used.

The law as it stands will always place us at a disadvantage in disposing of the total output of the Jute Mill, for the reason principally that all the farmers who would use our bags are not in a position financially to place their orders direct with us, but are dependent upon middlemen to procure bags for them; and, while the law was intended to benefit and protect the farmers, its operation practically has an opposite effect.

At the beginning of the current year a change was made in the management of the Jute Mills, and the present Superintendent, appointed upon the recommendation of your honorable Board, made a number of improvements and changes in the arrangement and working of various machines, which are claimed by him will have the effect of increasing the output and reducing the cost of manufacture.

It has been suggested and advised that it would be profitable to engage in the manufacture of other lines of jute goods besides grain bags; however, it appears that if we did so, we should come in competition with the free labor of this State, and in particular with that employed by the California Cotton Mills at Oakland, which factory makes a specialty of supplying this coast with ore, bean, and other similar bags. The only bags other than those used for grain, of which large quantities are used, and which are not manufactured elsewhere in this State, are sugar bags, and we have succeeded during the last few months in securing several contracts for the manufacture of these at a figure which will leave us some profit. The manufacture of these bags, together with the anticipated increased output and reduced cost of production, will doubtless lead to better results and a more profitable showing at the end of the ensuing fiscal year than we have been able to attain during the year just past.

TURNKEY'S DEPARTMENT.

By the reports of the Turnkey you will observe that our monthly average of prisoners for the past year is considerably more than that of the previous one, it being 1,279 $\frac{2}{3}$, as against 1,216 $\frac{1}{3}$.

RESIDENT PHYSICIAN'S DEPARTMENT.

In the Resident Physician's report your attention is called to the fact that the facilities for proper bathing are entirely inadequate for the large number of prisoners confined herein, and the recommendations made by him are earnestly seconded by me. With better accommodations in this respect I think the health of the prison would be greatly im-

proved, and the sanitary conditions would then compare favorably with any institution in the State. In this connection I cannot forbear again calling your attention to the very great need of a suitable ward or department for the care of those unfortunate inmates who are partially insane—some place where they can obtain the sunshine, fresh air, and proper and necessary exercise.

CHAPLAIN'S DEPARTMENT.

The Chaplain and Librarian's report shows that during the past year an increased interest has been manifested in our religious services, and it is with pleasure that I can report the continued pleasant coöperation of the clergy of the Catholic Church for the spiritual welfare of the inmates, the care for the sick and dying, and the burial of the dead.

Our thanks are due to the Sisters of Charity for their visits to the sick and the women confined in the female ward. Our thanks and commendations are also due to the Salvation Army for the good they have done and are now doing. One branch of their work lately taken up is the care shown discharged prisoners, assisting them to find employment and providing temporary homes for those desiring such assistance.

The prison library is in a thriving condition, and is being constantly augmented by donations and purchases of new books, so that now we have nearly 4,000 volumes. In this connection I would respectfully call your attention to the recommendation made by your honorable body in my report for the forty-sixth fiscal year, to wit: the purchase of a small press and some type.

SAN RAFAEL AND TIBURON ROAD.

I desire to call your attention to the fact that we have been put to considerable expense during the past fiscal year in building a road from San Rafael to Tiburon. The Legislature, during the session of 1893, passed the following Act, which was approved March 11, 1893, and reads as follows:

(Title of the Act, etc., see page 141, Stats. 1893.)

SECTION 1. The State Prison Directors of the State of California are hereby authorized and directed, during the four years next succeeding the passage of this Act, to employ at least twenty prisoners daily, during fair weather, in the construction and repair of such public roads as have been or shall hereafter be laid out, or opened by the Board of Supervisors of Marin County, and which extend from the San Quentin State Prison, or the ground surrounding the same, to Point Tiburon and to all railroad stations in Marin County which lie within three miles of the said State Prison.

SEC. 2. This Act shall take effect and be in force from and after its passage.

There was no provision made for the expense attending the same, and all of the expenses had to be paid out of the general appropriation for the support and maintenance of the prison.

In order to carry out the provisions of said Act, it became necessary to employ five extra guards, at a cost of \$50 per month each and board; also, it required eight horses to convey the convicts to and from their work and do the necessary grading; as well as saddle horses for a portion of the guards on duty. We have had for the past four months 55 convicts at work daily, and the work done has been highly commended by the Supervisors of Marin County and prominent citizens who are interested in the construction of this road or boulevard, and I would recommend that your honorable body request the next Legislature to pass an act appropriating the necessary amount of money to finish said work.

Prior to resuming work on said road, which was discontinued by order of your honorable body, as the question of the payment of the expenses incurred was considered, and decided could not be paid out of our funds, and at your suggestion I requested the Hon. W. F. Fitzgerald, the Attorney-General, to give us his opinion as to the legality of our paying the necessary expenses out of moneys appropriated for the maintenance of this prison. His construction of the law was, "that it is mandatory, and must be done, and such expenses paid by us." Consequently, work was immediately commenced, and fortunately we have had but little unpleasant weather, and a very large amount of labor has been accomplished. I trust such an appropriation will be obtained, as the work should be continued until the project is completed.

COST OF MAINTENANCE.

Notwithstanding the extra and unexpected expense incurred in the construction of this road, which had to be paid out of the general appropriation for the support of the prison, the gross maintaining cost for the past year compares very favorably with that of the previous year, being, as shown by the Clerk's report herewith attached, \$154,019 81, or 33 cents per capita, against \$159,069 62, or 34.09 cents per capita, for the preceding year.

On account of the Jute Mills having been run at a loss instead of the usual profit, the net maintaining cost, however, is somewhat higher, the exact amount being 30.45 cents per capita for the forty-sixth, and 32.95 cents for the forty-seventh fiscal year.

STEWARD'S DEPARTMENT.

The kitchen and its culinary appliances of the convicts' dining-room are in such a condition that some change is absolutely necessary. The light and ventilation are extremely bad, and the ranges, cooking-vats, boilers, etc., besides being very old and worn, are of the most primitive description, and not at all what they should be in order to prepare the

food for the prisoners either in the most palatable or economical manner. To remedy the faults of the existing culinary facilities, an entire change should be made, and with a view to their improvement I would recommend that the bakery now located in the north end of the building be removed to the extreme southern end of the same building, where new ovens could be built and windows cut through the walls, which would give sufficient light and ventilation; and that the place made vacant by such removal, after being first enlarged by taking out the partition wall between the kitchen and bakery as now located, be used for a new kitchen, to be fitted up with new ranges and modern culinary appliances and utensils.

I take this opportunity to again thank you, individually and as a Board, also the officers and employés of the prison, for the able assistance and coöperation that I have received from you, and them, during the past year in the management of this institution.

I am gentlemen, very respectfully, yours,

W. E. HALE,
Warden.

CLERK'S REPORT.

CLERK'S OFFICE, CALIFORNIA STATE PRISON, }
SAN QUENTIN, August 1, 1896. }

To the Honorable Board of State Prison Directors:

GENTLEMEN: I herewith submit for your consideration a full statement of the financial transactions of this prison for the forty-seventh fiscal year, ending June 30, 1896:

Table 1—Cash receipts from all sources during forty-seventh fiscal year.

Table 2—Cash disbursements during forty-seventh fiscal year.

Table 3—Issues from Commissary Department, forty-seventh fiscal year.

Table 4—Abstract of expenses during forty-seventh fiscal year.

Table 5—Cost of maintaining prisoners during forty-seventh fiscal year.

Table 6—Earnings during forty-seventh fiscal year.

Table 7—Assets and liabilities.

Table 8—Expert's certificate.

Very respectfully,

J. V. ELLIS,
Clerk.

TABLE No. 1.
Cash Receipts for Forty-seventh Fiscal Year, ending June 30, 1896.

	General Appropriation Forty-seventh Fiscal Year.	State Prison Fund.	Jute Revolving Fund.	United States.	Jute Department.	Commissary Department.	Hospital Department.
1895—July		\$17,268 01			\$4,194 62	\$221 27	\$3 80
August	\$11,949 70	7,445 19			1,443 63	232 12	4 55
September	11,038 30	6,472 35			193 21	225 84	3 20
October	12,243 60	6,778 50		\$2,704 50	176 71	244 10	9 20
November	10,769 10	6,442 95			236 63	236 63	6 20
December	11,045 20	6,346 83			99 76	262 45	7 40
1896—January	18,188 24		\$17,284 00	3,030 25	115 90	246 39	7 55
February	17,478 49		6,310 00	1 05	2,289 94	282 27	10 90
March	6,506 94				2,852 41	236 18	11 22
April	21,882 59	6,528 32	6,160 00	6,108 95	203 11	258 82	8 05
May	11,411 56	6,501 98	185 93		6,778 78		9 05
June	11,808 84	6,696 80	44,452 75		63,902 85	237 38	11 50
Totals	\$144,322 56	\$70,480 93	\$74,392 68	\$11,842 75	\$85,307 38	\$3,006 56	\$92 62
		Captain of Yard's Department.	Turnkey's Department.	Stock Department.	Board and Rent.	Miscellaneous.	Total.
1895—July		\$64 70	\$71 90	\$53 42	\$219 25	\$8 85	\$22,105 82
August		60 20	101 75	36 00	188 34	4 77	9,516 55
September		50 35	107 55	37 00	179 08	91 46	18,398 34
October		58 17	127 10	32 75	222 83	4 90	22,602 36
November		98 28	67 75	44 00	178 50	30 80	18,083 13
December		54 05	71 44	48 00	178 00	55	18,113 68
1896—January		49 75	84 66	39 05	219 67	4 45	39,309 91
February		59 85	66 39	33 50	192 42	3 00	28,727 81
March		48 15	99 05	23 00	223 71	6 45	10,007 11
April		47 00	101 52	31 85	225 41	28 10	44,453 55
May		124 18	33 57	31 50	218 08	1 85	25,555 30
June		55 05	103 13	29 90	222 77	9 76	127,530 73
Totals		\$769 73	\$1,035 81	\$439 97	\$2,468 06	\$194 94	\$382,404 29

TABLE No. 2.—Cash Disbursements for Forty-seventh Fiscal Year, ending June 30, 1896.

	Advertising	\$61 25					Total	\$70,337 21
	Freight	\$186 85 478 30 463 84 605 30 417 45 218 10					Execution Ac- count	\$25 00 25 00 13,826 15 20,462 20 21,064 27 18,913 81 36,678 82 28,012 08 9,753 93 38,594 81 28,279 42 111,163 79
	Transportation of Insane Prisoners	\$21 75 11 90 35 40 58 10 5 65 33 90					Prison Direct- ors' Expenses.	\$238 70 610 20 218 60 511 80 351 10 210 00 288 50
	Transportation of Prisoners	\$105 50 115 70 118 75 88 20 50 65 141 65 117 00 121 15 151 20 148 70 273 95 114 30					Attorney Fees.	\$250 00 \$250 00
	Discharged Prisoners	\$145 00 140 00 120 00 165 00 150 00 155 00 169 00 165 00 135 00 175 00 140 00					General Repairs	\$14 25 74 80 9 17 288 23 173 02 11 29 218 40 206 63 119 18 116 02 259 78
	Salaries of Jute Employes	\$1,589 97 1,385 84 1,553 86 1,551 32 1,613 25 1,573 51 1,706 61 1,709 30 1,719 51 1,798 89 1,727 82 1,766 47					General Expense	\$187 55 133 13 123 40 438 19 80 47 20 53 232 38 121 88 74 54 119 18 110 02 108 81
	Salaries of Officers and G'drs.	\$1,982 47 4,804 21 4,817 10 4,780 82 4,829 70 4,737 15 4,748 89 4,774 69 4,787 43 4,798 89 4,774 66 4,930 33					Transportation of U. S. Prisoners	 16 05 53 55 5 00 32 45
	Materials Purchased in the East, Account Jute Mill.	\$679 31 967 96					Drugs and Medicines	\$227 97 248 21 167 72 191 60 128 83 512 81 141 63 130 71
	Merchandise	\$8,346 22 10,664 41 9,479 28 9,441 52 9,075 45 9,366 58 10,571 51 9,806 75					Water	\$731 50 549 20 612 45 514 46 561 35 505 30 402 89 547 95
	Jute Freight, Etc.	\$17,284 00 6,310 00 6,910 03 9,944 23 44,441 65					Electric Lights.	\$175 00 175 00 175 00 175 00 175 00 175 00 175 00
	Jute Revolving Fund	\$12,500 00 4,000 00 2,000 00 750 00					Gas	\$266 95 210 00 151 83 182 70 247 80 263 97 310 80 321 30
	State Prison Fund	\$3,500 00 600 00 500 00 6,106 95					Expense Re- turning Pa- roled Prisoner	\$55 00
1895-July	Totals	\$10,706 95						\$2,809 65
August								
September								
October								
November								
December								
January								
February								
March								
April								
May								
June								
Totals								\$55 00

TABLE No. 3.

Exhibit of Issues from Commissary Department during Forty-seventh Fiscal Year, ending June 30, 1896.

	Subsistence.	Forage.	Wood and Coal.	Coal Oil.	Tobacco.	Clothing.	Beds and Bedding.	Leather and Findings.	Furniture and Crockery.	Drugs and Medicines.
1895--July --	\$4,324 30	\$58 58	\$1,930 67	\$58 26	\$346 45	\$1,036 49	-----	\$461 50	\$31 73	\$249 56
August	4,210 34	84 13	1,651 82	80 98	442 99	1,042 54	\$8 59	1,042 26	29 06	159 30
September	3,983 86	89 10	1,787 92	93 01	343 82	1,005 23	41 48	601 47	24 28	187 30
October	4,317 02	92 03	1,659 89	122 16	361 28	497 31	-----	620 41	31 47	116 80
November	4,242 76	181 43	2,166 68	141 05	432 02	726 30	38 54	368 33	26 13	588 71
December	4,238 86	145 19	1,233 21	121 21	338 19	1,008 50	20 72	691 00	50 86	481 90
1896--January	4,082 98	92 01	1,997 71	161 74	437 45	1,170 60	129 80	722 97	80 21	248 16
February	3,909 60	54 98	1,844 92	122 29	352 43	642 26	58 03	615 96	30 84	610 22
March	4,097 61	96 97	1,877 39	121 11	323 31	714 76	47 25	488 75	30 18	289 57
April	4,221 58	103 24	1,667 94	121 11	354 54	934 10	4 48	495 85	39 98	281 81
May	4,256 38	88 05	1,423 40	140 00	460 73	809 35	64 25	538 07	30 72	558 59
June	4,366 76	72 67	2,121 24	105 79	348 54	888 33	10 41	575 30	31 38	286 94
Totals	\$50,282 09	\$1,126 85	\$19,302 79	\$1,370 84	\$4,541 75	\$10,475 77	\$423 55	\$6,722 87	\$436 87	\$3,347 86
		Ordnance and Ordnance Stores.	Hardware and Tools.	Paints and Oils.	Building Material.	Wagons and Harness.	Stationery.	Photograph Material.	Miscellaneous.	Total.
1895--July --	-----	-----	\$459 73	\$540 61	\$68 77	\$18 03	\$54 79	\$34 40	\$40 56	\$9,717 47
August	-----	\$6 00	395 97	613 79	234 56	8 60	45 52	18 88	8 48	9,581 81
September	-----	9 50	322 56	678 44	286 39	28 60	82 91	16 43	16 49	9,598 79
October	-----	13 75	396 99	635 61	226 48	9 86	50 54	21 16	27 93	9,200 69
November	-----	1 50	370 92	445 53	108 09	81	39 03	31 33	33 86	9,923 02
December	-----	-----	853 96	158 19	188 88	30	57 33	27 34	46 87	9,929 51
1896--January	-----	59 10	271 55	423 52	229 98	11 37	58 68	21 70	57 85	9,688 77
February	-----	-----	379 79	209 74	167 17	26 88	50 69	26 33	28 44	8,325 21
March	-----	-----	436 35	626 74	44 32	1 50	51 69	36 84	44 74	9,329 08
April	-----	-----	875 21	571 62	189 08	17 90	49 56	21 55	41 23	9,683 38
May	-----	12 80	379 28	625 89	140 68	26 55	57 16	29 48	12 37	9,653 75
June	-----	-----	312 08	526 32	8 92	14 59	52 08	25 69	20 84	9,707 88
Totals	-----	\$102 65	\$6,050 39	\$6,056 00	\$1,893 32	\$164 99	\$649 98	\$311 13	\$379 66	\$113,689 36

TABLE No. 4.

Abstract of Expenses for the Forty-seventh Fiscal Year.

Advertising	\$70 23
Gas	2,707 87
Electric lights	2,100 00
Water	5,017 61
Water service	194 78
Discharged prisoners	1,795 00
Transportation of prisoners	1,547 35
Transportation, insane prisoners	178 30
Salaries	57,776 34
Warden's residence—subsistence	963 81
Warden's residence—furniture and fixtures	88 03
Prison mess	38,813 71
Guards' mess	6,089 73
Officers' mess	1,315 63
Female mess	1,098 41
Night Guards' mess	543 13
Expenses of State Prison Directors	2,591 30
Captain of Yard's Department	7,104 69
Turnkey's Department	13,237 58
Hospital Department	5,239 41
Guards' Department	543 55
Clerk's office	363 63
Library	82 01
General expense	1,349 98
General repairs	3,032 85
Execution account	75 00
Paroled prisoners	30 00
Tiburon road	69 88
Total	\$154,019 81

TABLE No. 5.

Cost of Maintaining Prisoners, per head.

Average number of prisoners for year, 1,279 $\frac{3}{4}$ —total cost		\$154,019 81
Average cost per head per month	\$10 06	
Average cost per head per day	33	
Total expenses for year (Table No. 4)		\$154,019 81
Net earnings of Commissary Department	\$593 65	
Net earnings of Stock Department	823 29	
Support of United States prisoners	12,212 50	
Rent of State houses	767 50	
Total earnings for year	\$14,396 94	
Deduct loss account, Jute Department	12,288 45	
Net earnings for year		\$2,108 49
Net expenses of prison for year		\$151,911 32
Average net cost per head per month	\$9 88	
Average net cost per head per day	32 $\frac{95}{100}$	

TABLE No. 6.

Earnings, Forty-seventh Fiscal Year, ending June 30, 1896.

Commissary Department	\$593 65	
Stock Department	823 29	
Support of United States prisoners	12,212 50	
Rent of State houses	767 50	
Total earnings for the year		\$14,396 94
Less loss account Jute Department		12,288 45
Net earnings for the year		\$2,108 49

TABLE No. 7.

Assets and Liabilities.

<i>Assets.</i>		
Buildings.....	\$491,890	10
Real estate	50,910	55
Reservoirs	31,278	55
Furniture Department	12,928	86
Jute Department—Equipment	447,525	75
Stock fabrics, etc.....	203,503	50
Commissary Department—Stock	1,370	77
Property.....	874	09
Captain of Yard's Department.....	22,725	04
Turnkey's Department	7,070	43
Guards' Department	11,883	00
Hospital Department.....	3,280	95
Stock Department	12,223	01
Warden's House—furniture and fixtures	7,958	78
Clerk's offices	1,989	83
Library	1,509	00
		\$1,308,922 21
Guards' mess	\$727	33
Officers' mess	168	99
Prison mess	3,618	20
		4,514 52
Due from United States	\$3,469	45
Due from sundry debtors	24,080	47
Cash in General Appropriation Fund	3,254	14
Cash in State Prison Fund	16,087	90
Cash in Jute Revolving Fund.....	5,832	38
Cash, balance on hand, June 30, 1896	30,739	55
		83,463 89
Total assets June 30, 1896.....		\$1,396,900 62
<i>Liabilities.</i>		
Unpaid bills for merchandise, month of June	\$11,119	95
Unpaid salary of officers and guards, month of June.....	4,959	98
Unpaid wages of Jute Department employés, month of June	1,845	93
		17,925 86
Excess of assets		\$1,378,974 76

EXPERT'S CERTIFICATE FOR FORTY-SEVENTH FISCAL YEAR, ENDING
JUNE 30, 1896.

STATE PRISON AT SAN QUENTIN, July 20, 1896.

I hereby certify that I have compared the annual report of Joseph V. Ellis, Clerk of San Quentin Prison, for the fiscal year ending June 30, 1896, with the several accounts as kept in the official books of said prison, and find it to be a true and correct statement from said books. I also certify that the Clerk has kept the accounts of San Quentin Prison for said fiscal year in such a manner as to explain clearly all its financial transactions, and where any sum was paid to the Warden the same has been properly entered on the books by the Clerk. I also certify that I find authorizations duly and properly signed by a majority of the State Board of Prison Directors for all disbursements included in said report for the fiscal year ending June 30, 1896, and that the Warden has required vouchers for all moneys by him expended during said fiscal year, and safely kept the same on file in his office at the prison.

L. WADHAM,
Expert Accountant for the State Board of Prison Directors.

CAPTAIN OF THE YARD'S REPORT.

SAN QUENTIN, June 30, 1896.

HON. W. E. HALE, *Warden San Quentin State Prison, California:*

DEAR SIR: I have the honor to herewith submit my annual report, in tabular statements, for the fiscal year ending June 30, 1896.

Very respectfully, yours,

JOHN C. EDGAR,
Captain of the Yard.

LABOR REPORT FOR THE FISCAL YEAR ENDING JUNE 30, A. D. 1896.

Productive Class.

	1895.						1896.						Total
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	
Jute Department	17,874	18,458	16,194	17,659	15,668	9,374	4,328	12,176	17,242	17,388	16,782	17,495	180,638
Engineer Department	52	54	48	62	60	62	57	58	62	60	62	63	705
Foundry Department	546	582	541	612	575	566	540	524	594	536	515	541	6,652
Stock Department and stable	443	495	521	548	454	397	372	370	410	423	446	446	5,376
Female Department	465	480	469	558	540	539	527	489	496	441	465	450	5,919
Wheelwright's shop	26	27	24	27	25	25	26	24	26	26	25	26	307
Upholsterer's shop	52	59	48	54	50	50	52	48	52	52	37	26	580
Locksmith's shop	31	31	30	31	30	31	31	29	31	30	31	30	366
Carpenter-shop	310	276	264	297	275	282	310	288	309	275	269	286	3,441
Plumber-shop	78	81	79	81	62	56	52	66	78	78	75	78	864
Cooper-shop	26	27	24	27	25	25	26	24	26	26	25	26	307
Paintshop	52	54	48	54	50	50	52	48	56	56	78	75	695
Tinshop	156	139	144	162	145	125	130	120	130	130	125	130	1,636
Coal-yard	31	31	30	31	30	31	31	29	31	30	31	30	366
Vegetable gardens	278	265	270	273	281	384	403	369	333	302	403	374	3,935
Flower gardens	395	384	360	357	330	336	310	330	383	368	416	416	4,385
Beltmakers	26	27	24	27	25	25	26	24	26	26	25	26	307
Improvements	55	54	48	40	30	25	26	31	52	43	25	26	455
Stevedores	356	354	312	335	283	275	295	331	338	322	275	317	3,793
Rock-pile	941	954	902	1,066	1,009	929	861	780	774	637	449	284	9,606
Road gang	440	390	417	563	532	416	413	427	312	139	14	---	4,063
Chicken ranch	62	62	60	62	60	62	52	55	62	60	62	60	719
Hog ranch	62	62	60	62	60	62	62	58	62	60	62	60	732
Blacksmith-shop	52	54	48	54	50	50	52	48	52	52	52	52	614
Harnessmakers	26	27	24	27	25	25	26	24	26	26	25	26	307
County road gang	---	---	---	186	527	733	783	748	806	947	1,181	1,464	7,375
Totals	22,835	23,427	20,989	23,255	21,201	14,935	9,843	17,518	22,769	22,595	22,001	22,815	244,183

LABOR REPORT FOR THE FISCAL YEAR ENDING JUNE 30, A. D. 1896.

Non-Productive Class.

	1895.						1896.						Total
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	
Warden's office.....	31	31	30	31	30	31	31	29	31	30	31	30	366
Captain of Yard's office.....	248	248	248	253	240	248	248	232	248	240	239	240	2,932
Clerk's office.....	31	31	30	31	30	31	31	29	31	30	31	30	366
Captain of Guard's office.....	31	31	30	31	30	31	31	29	31	30	31	30	366
Commissary Department.....	279	279	270	265	240	263	288	266	262	270	279	270	3,231
Laundry Department.....	799	851	783	854	755	752	762	722	771	804	775	793	9,421
Library Department.....	155	155	150	155	130	155	155	124	124	120	124	130	1,687
Barber-shop.....	247	248	240	248	240	248	248	232	244	227	248	240	2,910
Shoeshop.....	372	386	340	380	373	386	384	375	416	406	375	390	4,593
Tailor-shop.....	479	444	381	463	450	478	519	494	546	531	515	477	5,777
Lamp-lighters.....	62	62	60	62	60	64	62	61	62	60	62	60	737
Bath-tank tenders.....	31	31	30	31	30	31	31	29	31	30	38	44	387
Cell and room tenders.....	1,001	960	991	1,038	1,010	1,024	1,042	947	1,023	980	1,021	984	12,021
Gate and door tenders.....	415	461	393	378	364	374	391	385	403	387	396	379	4,726
Hospital nurses.....	205	215	180	186	180	186	197	202	217	203	197	210	2,378
Sweepers.....	619	579	530	554	517	528	501	430	395	380	452	446	6,052
Scavengers.....	451	500	420	543	517	527	501	430	395	380	452	446	5,846
Whitewashers.....	320	290	204	200	175	175	181	189	165	143	150	185	2,377
General kitchen and dining-room.....	2,013	2,031	1,986	2,093	2,008	2,097	2,081	1,859	1,971	1,924	1,965	1,996	24,054
Outside kitchen.....	467	465	451	485	454	464	475	353	496	484	521	497	5,612
Hospital kitchen.....	62	62	60	62	60	62	62	58	62	60	62	60	732
House-servants.....	740	748	728	759	748	752	794	743	843	847	864	824	9,390
Electricians.....	31	31	30	31	30	31	31	29	31	30	31	30	366
Photographers.....	68	62	60	62	82	87	62	58	62	60	62	60	732
Messengers.....	124	124	120	124	130	127	128	116	124	120	127	130	1,504
Guards' Department.....	62	62	60	62	60	62	62	58	62	60	62	62	704
Warden's laundry.....	2,104	1,995	1,899	2,032	2,102	2,009	1,951	1,708	1,801	1,736	1,717	1,580	22,624
Cripples and insane.....	562	677	712	1,091	1,300	296	174	374	626	586	660	557	7,815
Doctor, daily excuses, dungeon, etc.....	413	394	321	353	406	324	291	345	458	510	592	704	5,111
Patients in hospital.....	115	131	171	125	153	7,734	13,474	3,990	56	56	107	62	26,174
Unemployed.....													
Totals.....	12,599	12,646	11,968	13,034	12,958	19,649	25,276	14,979	12,107	11,824	12,267	12,462	171,769

Productive class, 244,183; non-productive class, 171,769; grand total, 415,952.



TURNKEY'S REPORT.

SAN QUENTIN, MARIN COUNTY, CAL., June 30, 1896.

HON. W. E. HALE, *Warden San Quentin State Prison, California:*

DEAR SIR: I have the honor to submit to you herewith my report in tabular statements for the fiscal year ending June 30, 1896.

Very respectfully yours,

J. C. JAMIESON,

Turnkey.

REPORT OF STATE BOARD OF PRISON DIRECTORS.

TABLE No. 1.

Recapitulation of Prisoners Received and Discharged, from July 1, 1895, to June 30, 1896.

Month.	Total Discharge	Died	Executed	Transferred to Folsom	Taken Out as Witnesses	Taken Out for Trial	Taken Out for New Trial	Sent to Insane Asylum	Pardoned by the Governor	Committed by the Governor	Paroled	Delivered to U. S. Marshal by Order U. S. Dist. Court	Delivered to U. S. Marshal	Discharged by Order of Court	Discharged per Act	Discharged per Act and Restored	Number of Prisoners on Hand at Close of Each Month	Total Receipts	Transferred from Folsom	Returned from Insane Asylum	Returned Witnesses	Returned from Parole	Returned on Writ	Under New Commitment	By Commitment
1895—July	33	3	1	0	0	0	0	0	0	0	0	0	0	0	8	21	1,284	30	0	0	0	0	0	0	30
August	35	4	1	0	0	0	1	1	1	0	0	0	1	0	14	12	1,274	25	0	0	0	0	0	0	24
September	29	3	1	0	0	0	0	1	0	0	0	0	0	0	5	20	1,281	36	0	1	0	0	0	0	35
October	40	1	0	0	1	0	0	0	0	0	1	0	0	0	18	18	1,283	42	0	0	0	0	0	0	41
November	34	1	0	0	0	0	0	0	0	0	0	0	0	1	5	26	1,288	39	0	3	0	1	0	0	34
December	35	3	0	0	0	0	0	0	0	0	0	0	0	0	9	21	1,283	35	0	0	0	0	0	0	35
1896—January	40	3	0	1	0	0	1	2	1	1	0	0	0	0	24	9	1,283	35	0	1	0	0	0	0	34
February	35	0	0	0	0	0	0	0	0	0	2	0	4	0	6	25	1,261	18	0	0	0	1	0	0	18
March	40	2	0	0	0	0	1	0	0	2	0	0	0	1	6	23	1,266	39	0	0	0	1	0	0	36
April	34	0	0	0	1	0	0	2	1	1	0	0	0	0	41	24	1,265	41	0	0	0	0	0	0	41
May	42	0	0	0	0	0	0	0	0	0	4	0	0	0	12	0	1,265	41	0	2	0	0	0	0	38
June	40	1	0	1	1	1	1	0	0	1	0	1	1	0	8	23	1,288	53	0	0	1	0	0	0	52
Totals	443	27	3	3	3	1	4	6	3	5	12	1	6	2	109	258	13,300	456	23	8	3	1	2	1	418

Number of prisoners on hand June 30, 1895
Received from July 1, 1895, to June 30, 1896

Total
Discharged from July 1, 1895, to June 30, 1896

Number of prisoners on hand June 30, 1896
Monthly average of prisoners
Increase for year

1,287

456

1,743

443

1,300

1,279 $\frac{1}{2}$

13

TABLE No. 2.

Nativity of Prisoners.

United States.	No.	Per Cent.	Foreign.	No.	Per Cent.
Alabama.....	1	.07	At sea.....	2	.15
Arkansas.....	6	.46	Austria.....	8	.61
California.....	314	24.15	Australia.....	3	.23
Connecticut.....	6	.46	British Columbia.....	9	.69
Colorado.....	5	.38	China.....	82	6.30
District of Columbia.....	2	.15	Canada.....	23	1.76
Delaware.....	1	.07	Costa Rico.....	1	.07
Georgia.....	7	.53	Denmark.....	1	.07
Illinois.....	41	3.15	England.....	44	3.38
Indiana.....	13	.10	France.....	12	.92
Iowa.....	16	1.23	Germany.....	56	4.30
Kansas.....	6	.46	Greece.....	5	.38
Kentucky.....	22	1.69	Hayti.....	1	.07
Louisiana.....	12	.92	Holland.....	1	.07
Maine.....	10	.76	Ireland.....	99	7.61
Maryland.....	7	.53	Italy.....	20	1.53
Michigan.....	12	.92	Japan.....	3	.23
Mississippi.....	3	.23	Mexico.....	49	3.76
Massachusetts.....	35	2.59	Nova Scotia.....	2	.15
Minnesota.....	5	.38	New Brunswick.....	5	.38
Missouri.....	35	2.59	Portugal.....	2	.15
Montana.....	3	.23	Russia.....	13	.10
New Hampshire.....	1	.07	South America.....	1	.07
Nebraska.....	1	.07	Sweden and Norway.....	15	1.15
Nevada.....	1	.07	Switzerland.....	4	.30
New York.....	68	8.53	Scotland.....	7	.53
New Jersey.....	16	1.23	Wales.....	3	.23
North Carolina.....	4	.30	West Indies.....	3	.23
Ohio.....	36	2.70	Spain.....	6	.46
Oregon.....	12	.92	Turkey.....	1	.07
Pennsylvania.....	44	3.38			
Rhode Island.....	4	.30		481	35.95
South Carolina.....	3	.23	<i>Recapitulation.</i>		
Tennessee.....	9	.69	United States.....	819	64.05
Texas.....	8	.61	Foreign.....	481	35.95
Utah.....	2	.15			
Vermont.....	1	.07	Totals.....	1,300	100.00
Virginia.....	13	.10			
Washington.....	1	.07			
Wisconsin.....	11	.84			
Wyoming.....	2	.15			
New Mexico.....	2	.15			
Arizona.....	10	.76			
District of Alaska.....	8	.61			
	819	64.05			

TABLE No. 3.

Classification of Crime.

Crime.	No.	Crime.	No.
Attempt at arson	3	Burglary and assault to murder	
Arson	1	(two commitments)	1
Arson, first degree	3	Conspiracy	5
Arson, second degree	8	Counterfeiting	18
Arson, second degree, and grand		Counterfeiting (three commit-	
larceny (two commitments)	1	ments)	1
Abduction	2	Crime against nature	3
Assisting prisoner to escape	2	Embezzlement	17
Assault with caustic chemicals	1	Felony	38
Assault with deadly weapon	35	Forgery	48
Assault to murder	39	Attempt at grand larceny	4
Assault to murder and prior	2	Grand larceny	154
Assault to murder and assault with		Grand larceny, and prior	12
deadly weapon (two commit-		Grand larceny (two commitments)	2
ments)	1	Intent to extort money	1
Assault to murder and robbery	1	Injuring public jail	5
Assault to rape	26	Larceny	1
Assault to rob	19	Larceny, and prior	2
Assault to commit sodomy	5	Manslaughter	45
Burglary	50	Murder	17
Burglary, second degree	157	Murder, first degree	101
Burglary, second degree, and prior	1	Murder, second degree	84
Burglary, second degree (two com-		Obtaining money, etc., by false	
mitments)	6	pretenses	6
Burglary, first degree	114	Petit larceny, and prior	9
Burglary, first degree, and prior	8	Perjury	11
Burglary, first degree (two com-		Passing counterfeit money	10
mitments)	7	Rape	24
Burglary, first and second degrees	1	Receiving stolen goods	2
Burglary, first and second degrees		Robbery	129
(two commitments)	2	Robbery, and prior	11
Burglary, first degree (three com-		Robbing United States mail	11
mitments)	2	Seduction	2
Burglary, first and second degrees,		Selling liquor to Indians	8
and prior	1	Sodomy	7
Burglary, first and second degrees		Unlawfully carrying on the busi-	
(three commitments)	2	ness of a retail liquor dealer	5
Burglary and grand larceny (four		Total	1,300
commitments)	1		

TABLE No. 4.

Terms of Imprisonment.

Term.	No.	Term.	No.
Four months.....	1	Twelve and one half years.....	1
Six months.....	10	Thirteen years.....	5
Nine months.....	1	Fourteen years.....	31
One year.....	71	Fifteen years.....	35
Thirteen months.....	4	Sixteen years.....	4
Fourteen months.....	4	Seventeen years.....	7
Fifteen months.....	1	Eighteen years.....	4
Seventeen months.....	1	Nineteen years.....	1
Eighteen months.....	20	Twenty years.....	44
Twenty months.....	1	Twenty-one years.....	1
Twenty-one months.....	1	Twenty-four years.....	1
Two years.....	90	Twenty-five years.....	22
Twenty-eight months.....	1	Twenty-five and one half years.....	1
Two and one half years.....	18	Twenty-six years.....	5
Two and ten twelfths years.....	1	Twenty-seven years.....	1
Three years.....	136	Twenty-eight years.....	1
Three and one twelfth years.....	7	Thirty years.....	5
Three and one half years.....	6	Thirty-two years.....	1
Four years.....	68	Thirty-two and one half years.....	1
Four and ten twelfths years.....	1	Thirty-three years.....	4
Five years.....	150	Thirty-five years.....	7
Six years.....	51	Thirty-nine years.....	1
Six and one half years.....	1	Forty years.....	10
Seven years.....	60	Forty-five years.....	1
Seven and one half years.....	4	Fifty years.....	5
Eight years.....	42	Sixty-six years.....	1
Eight and two twelfths years.....	1	Life.....	143
Nine years.....	18	Under sentence of death.....	8
Ten years.....	142		
Eleven years.....	3	Total.....	1,300
Twelve years.....	27		

Number of Terms.

Prisoners serving their first term.....	987
Prisoners serving their second term.....	205
Prisoners serving their third term.....	67
Prisoners serving their fourth term.....	21
Prisoners serving their fifth term.....	9
Prisoners serving their sixth term.....	5
Prisoners serving their seventh term.....	4
Prisoners serving their eighth term.....	2
Total.....	1,300

Educational Abilities of Prisoners.

Read and write.....	917
Read but cannot write.....	119
Neither read nor write.....	264
Total.....	1,300

TABLE No. 5.

Age of Prisoners.

Age.	No.	Age.	No.
Seventeen	2	Forty-nine	14
Eighteen	17	Fifty	21
Nineteen	16	Fifty-one	17
Twenty	21	Fifty-two	17
Twenty-one	25	Fifty-three	5
Twenty-two	45	Fifty-four	9
Twenty-three	37	Fifty-five	9
Twenty-four	42	Fifty-six	16
Twenty-five	45	Fifty-seven	8
Twenty-six	57	Fifty-eight	7
Twenty-seven	51	Fifty-nine	12
Twenty-eight	38	Sixty	9
Twenty-nine	49	Sixty-one	10
Thirty	51	Sixty-two	9
Thirty-one	44	Sixty-three	8
Thirty-two	32	Sixty-four	6
Thirty-three	31	Sixty-five	4
Thirty-four	45	Sixty-six	7
Thirty-five	55	Sixty-seven	6
Thirty-six	52	Sixty-eight	5
Thirty-seven	40	Sixty-nine	3
Thirty-eight	45	Seventy	2
Thirty-nine	33	Seventy-one	1
Forty	25	Seventy-two	4
Forty-one	27	Seventy-three	1
Forty-two	34	Seventy-four	1
Forty-three	24	Seventy-five	2
Forty-four	21	Seventy-nine	1
Forty-five	20	Eighty-one	1
Forty-six	22	Eighty-six	1
Forty-seven	19		
Forty-eight	19	Total	1,300

TABLE No. 6.

Number of Prisoners from Each County.

County.	No.	Per Cent.	County.	No.	Per Cent.
Alameda.....	51	3.92	Sacramento.....	16	1.23
Amador.....	7	.53	San Benito.....	19	1.46
Butte.....	23	1.76	San Bernardino.....	50	3.84
Calaveras.....	11	.84	San Diego.....	31	2.38
Colusa.....	10	.76	San Francisco.....	366	28.46
Contra Costa.....	27	2.07	San Joaquin.....	36	2.76
Del Norte.....	1	.07	San Luis Obispo.....	16	1.23
El Dorado.....	2	.15	San Mateo.....	22	1.69
Fresno.....	25	1.92	Santa Barbara.....	20	1.53
Humboldt.....	10	.76	Santa Clara.....	30	2.30
Inyo.....	1	.07	Santa Cruz.....	22	1.69
Kern.....	28	2.15	Shasta.....	14	1.07
Kings.....	14	1.07	Sierra.....	4	.30
Lake.....	9	.69	Siskiyou.....	4	.30
Lassen.....	1	.07	Solano.....	24	1.84
Los Angeles.....	134	10.30	Sonoma.....	24	1.84
Madera.....	3	.23	Stanislaus.....	12	1.92
Marin.....	6	.46	Sutter.....	1	.07
Mariposa.....	6	.46	Tehama.....	7	.53
Mendocino.....	16	1.23	Tulare.....	24	1.84
Merced.....	5	.38	Tuolumne.....	12	.92
Modoc.....	1	.07	Ventura.....	9	.69
Mono.....	1	.07	Yolo.....	3	.30
Monterey.....	24	1.84	Yuba.....	3	.30
Napa.....	32	2.46	District of Alaska.....	18	.84
Nevada.....	7	.53	Arizona.....	14	1.07
Orange.....	4	.30	State of Washington.....	8	.61
Placer.....	21	1.61			
Plumas.....	2	.15	Total.....	1,300	100.00
Riverside.....	9	.69			

TABLE No. 7.

Occupation of Prisoners when Received.

Occupation.	No.	Occupation.	No.
Actor.....	3	Jeweler.....	3
Auctioneer.....	1	Laborer.....	287
Architect.....	1	Lumberman.....	6
Attorney-at-law.....	1	Laundryman.....	23
Banker.....	1	Machinist.....	32
Barber.....	29	Miner.....	50
Baker.....	17	Millwright.....	2
Blacksmith.....	23	Merchant.....	4
Barkeeper.....	8	Musician.....	6
Bookkeeper.....	24	No occupation.....	75
Bookbinder.....	2	Painter.....	38
Boilermaker.....	5	Peddler.....	4
Bricklayer.....	7	Plumber.....	12
Broommaker.....	3	Physician.....	2
Butcher.....	17	Photographer.....	2
Brewer.....	1	Printer.....	5
Carpenter.....	32	Railroadman.....	9
Carver.....	1	Ranch hand.....	20
Cabinetmaker.....	5	Sailor.....	34
Cigarmaker.....	3	Salesman.....	10
Clerk.....	36	Saleslady.....	1
Cook.....	59	Schoolteacher.....	3
Cooper.....	4	Servant.....	3
Dairyman.....	3	Shoemaker.....	24
Druggist.....	3	Stockman.....	4
Dressmaker.....	4	Stenographer.....	4
Electrician.....	8	Stevedore.....	4
Engineer.....	10	Stonecutter.....	3
Engineer (civil).....	5	Spinner.....	2
Farmer.....	58	Tailor.....	17
Fireman.....	11	Tanner.....	4
Fisherman.....	4	Teamster.....	52
Furniture-polisher.....	2	Telegrapher.....	3
Foundryman.....	3	Tinsmith.....	3
Gardener.....	10	Upholsterer.....	4
Gasfitter.....	1	Vaquero.....	7
Harness-maker.....	4	Watchmaker.....	1
Hostler.....	34	Waiter.....	46
Horseshoer.....	2	Weaver.....	1
Houseservant.....	19	Wireworker.....	3
Hotelman.....	9	Woodchopper.....	2
Hunter.....	5	Total.....	1,300
Insurance agent.....	2		
Ironmolder.....	5		

TABLE No. 8.

Statement of Clothing Issued by Turnkey's Department, from July 1, 1895, to June 30, 1896.

	Pants	Shirts	Shoes	Caps	Blankets	Beds	Repairs	Socks	Boots, Shoes, and Slippers, to Order	Undershirts	Drawers	Coats	Vests	Yards of Bedtick- ing	Citizens' Clothing.					
															Shoes	Hickory Shirts	Coats	Vests	Pants	Hats
1895—July	224	204	132	120	7	55	107	409	20	192	207	69	8	121.3	18	3	25	26	26	16
August	194	204	166	121	2	45	140	412	21	215	205	68	10	216.6	21	3	23	23	24	18
September	210	173	169	113	14	82	160	393	13	193	192	78	6	69.6	16	16	13	17	17	14
October	157	196	115	94	30	84	132	332	21	178	194	91	11	177.6	34	11	33	33	33	16
November	233	253	194	138	18	50	176	510	25	243	261	132	5	78.0	34	12	21	21	24	11
December	210	168	157	104	39	80	299	401	22	191	189	128	10	277.6	29	11	19	19	21	20
1896—January	197	179	114	78	11	33	163	331	26	196	201	142	16	69.3	40	12	21	22	23	26
February	204	208	154	110	—	58	83	430	19	237	233	129	10	186.3	27	3	21	20	21	17
March	202	170	135	82	—	75	134	423	12	197	201	115	19	241.3	43	14	22	23	26	22
April	166	181	83	67	11	79	111	357	24	183	196	85	12	81.0	36	7	29	29	29	24
May	234	285	173	108	61	106	142	534	18	240	277	147	8	263.0	38	11	22	26	25	25
June	207	153	156	85	—	73	109	389	19	234	234	83	1	115.6	25	20	17	18	20	23
Totals	2,438	2,374	1,748	1,220	193	820	1,756	4,921	240	2,479	2,590	1,267	116	1,897.2	361	123	266	277	289	232

NOTE.—Manufactured for officers, guards, and employes during the year: 78 pants, 69 coats, 55 vests, 59 shoes, and 532 repairs.



REPORT OF RESIDENT PHYSICIAN.

MEDICAL DEPARTMENT, CALIFORNIA STATE PRISON, }
SAN. QUENTIN, July 1, 1896. }

HON. W. E. HALE, *Warden*:

DEAR SIR: I have the honor to herewith respectfully submit the annual report of the Medical Department for the year ending June 30, 1896.

I urgently call the attention of the honorable Board of Directors, through you, to the absolute want of bathing facilities. Those at present at the disposal of the inmates are crude in the extreme; being in the open air, none but the most hardy and robust can avail themselves thereof. I would suggest the adoption of the system known as the "Gegenstrom." Its advantages are: Minimum of cost and maintenance, economy in management, efficiency in cleansing the bather, requiring less time in application, less floor space, and less water; no two persons coming in contact with the same water, thus obviating the danger of communicating skin or other diseases. The system can be easily adapted, and thus enhance the sanitary condition of the prison.

The attention of the honorable Board should be called to the urgent necessity of suitable accommodations for the care of inmates who become suddenly deranged mentally; also for the treatment of prisoners entering the prison suffering from the opium habit, and those who are slightly deranged.

The different tabulated statistics show the number and character of the diseases treated, number and cause of deaths, etc.

The treatment, care, sanitary conditions, and surroundings of the inmates of the hospital are equal to any similar institution in the State.

Most respectfully,

WM. M. LAWLOR, M.D.,
Resident Physician.

EXHIBIT A—Continued.

Diseases.	1895.						1896.						Total
	July	August	September	October	November	December	January	February	March	April	May	June	
Stricture	2			1									3
Syphilis		2								1	1		4
Tape worm	1							1		1	1	2	6
Ulcer, indolent								1					1
Ulcerated throat			1										1
Wounds							1	2					3
Wound on finger					1				1		1		3
Wound, gunshot	1										1		2
Wound on hip		1											1
Wound, incise from knife												1	1
Wound, puncture of abdomen											1		1
Totals	20	25	12	22	23	8	6	22	25	22	23	17	225

EXHIBIT B.

Number and Names of Prisoners who Died during the Year ending June 30, 1896, with Cause and Date of Death.

Number.	Name.	Cause.	Date.
15966	Monroe, William	Insanity	July 18, 1895
16368	Woodmansee, G.	Typhus fever	July 19, 1895
15142	Reilly, John	Heart failure	July 23, 1895
15960	Fredericks, William	Executed	July 26, 1895
16282	Abran, Soto	Typhus fever	Aug. 1, 1895
15760	Vann, John	Cancer of the stomach	Aug. 4, 1895
15964	Smith, Fremont	Executed	Aug. 9, 1895
13051	Ah Gow	Phthisis pulmonalis	Aug. 15, 1895
16401	Dennison, William	Fever and dysentery	Aug. 23, 1895
14771	Wallace, J.	General debility	Sept. 1, 1895
13209	Smith, Robert	Dysentery	Sept. 8, 1895
12457	Savagean, P.	Asthma	Sept. 16, 1895
15878	Rodriguez, A.	Phthisis pulmonalis	Oct. 8, 1895
16464	Young, William	Executed	Oct. 25, 1895
15826	Ah Sam (Chinese)	Abscess of right lung	Nov. 6, 1895
15479	Ah Chewey (Chinese)	Necrosis, bone of foot	Nov. 7, 1895
12783	Brown, Worth	Heart disease	Dec. 12, 1895
14919	Jackson, S.	Phthisis pulmonalis	Dec. 27, 1895
11261	Figurroa, T.	Phthisis pulmonalis	Dec. 30, 1895
16647	Rogers, James	Suicide by hanging	Feb. 15, 1896
15608	Hawley, Joseph	Phthisis of the bowels	Feb. 27, 1896
15362	Cordoba, V.	Hemorrhage of the bowels	April 14, 1896
15361	Edwards, H.	Tertiary syphilis	May 3, 1896
16173	Scott, W. E.	Phthisis pulmonalis	May 4, 1896
12472	Arrison, W. A.	Hemorrhage from knife wound	May 18, 1896
14553	McGillen, Joseph	Inanition, effects of opium habit	May 22, 1896
14004	Chin Hong (Chinese)	Punctured wound of the abdomen	May 25, 1896
15176	Holcomb, Ludwig	Endocarditis	June 2, 1896
15513	Tyler, Theodore	Inanition, effects of opium habit	June 7, 1896
15125	O'Neal, Peter	Inanition	June 11, 1896
16465	Marshall, J. C.	Typhoid pneumonia	June 18, 1896

EXHIBIT C.

Number of Deaths each Month during the Fiscal Year ending June 30, 1896, with Classified Totals.

Cause.	1895.						1896.						Total
	July	August	September	October	November	December	January	February	March	April	May	June	
Abscess of right lung					1								1
Asthma			1										1
Cancer of the stomach		1											1
Dysentery			1										1
Endocarditis												1	1
Executed	1	1		1									3
Fever and dysentery			1										1
Fever, typhus	1	1											2
General debility			1										1
Heart disease						1							1
Heart failure	1												1
Hemorrhage from knife wound											1		1
Hemorrhage of the bowels										1			1
Inanition												1	1
Inanition, effects of the opium habit											1	1	2
Insanity	1				1								1
Necrosis, bone of foot					1								1
Phthisis of the bowels								1					1
Phthisis pulmonalis		1		1		2					1		5
Suicide by hanging								1					1
Syphilis											1		1
Typhoid pneumonia												1	1
Wound, puncture of the abdomen											1		1
Totals	4	4	4	2	2	3	0	2	0	1	5	4	31

EXHIBIT D.

Résumé of Work in Medical Department for the Year ending June 30, 1896.

	1895.					
	July	August	September	October	November	December
Calls on physician	1,820	2,510	1,835	2,516	2,554	1,683
Daily average	67	93	68	93	94	62
Visited in cells	147	188	97	151	108	46
Daily average	5	7	3	5	4	2
Excused from work	305	374	315	760	512	152
Daily average	11	14	11	28	19	5
Patients admitted	19	28	12	18	27	11
Patients discharged	9	22	16	14	26	13
Monthly invalid list	27	17	23	23	14	11
Monthly deaths	4	5	3	2	2	3

	1896.						Total
	January	February	March	April	May	June	
Calls on physician	1,734	2,215	2,155	2,159	3,271	2,955	27,407
Daily average	64	82	79	79	121	109	
Visited in cells	38	65	104	132	154	74	1,304
Daily average	1	2	4	5	5	2	
Excused from work	35	126	222	202	398	539	3,940
Daily average	1	4	8	7	14	20	
Patients admitted	5	26	25	19	27	18	235
Patients discharged	5	20	23	18	17	12	195
Monthly invalid list	8	13	20	22	24	19	221
Monthly deaths	0	2	0	1	5	4	31

CHAPLAIN'S REPORT.

SAN QUENTIN STATE PRISON, CAL., July 1, 1896.

To the Warden and Board of Directors State Prison, San Quentin, Cal.:

GENTLEMEN: I beg to submit herewith the annual report of the Resident Chaplain San Quentin State Prison, California, dating from July 1, 1895, to June 30, 1896.

There have been issued from the library the following number of books, viz.: 28,254 volumes from the General Department, and 16,233 volumes from the Catholic Department; total of 44,487 volumes for the year, averaging 3,707 per month.

There have been received from all sources during the year, 1,658 bound volumes and pamphlets, 3,925 magazines, and 21,021 religious and literary papers of the best quality, distributed among the men. The better class of magazines in consecutive numbers have been bound in the prison bindery, and added to the circulating library for permanent use, in addition to the Harpers, Century, Scribners, Cosmopolitan, Review of Reviews, Popular Science Monthly, Popular Opinion, Frank Leslie's, and Overland Monthly, regularly subscribed for from the prison fund.

There have been bound and repaired in the prison bindery, 1,290 books and memoranda, etc. There have been bound 185 volumes of magazines and 6 photographic albums for Folsom Prison; also, 175 volumes have been sent to Preston School of Industry, at Ione.

Sabbath services have been regularly maintained, with the usual attendance and increased interest. There have been 28 funeral services during the year. Special attention has been shown to outgoing prisoners desiring employment through the coöperation of the Salvation Army, and not a few have been found steady employment or sent to other destinations.

The coöperation of the Warden and fellow officers is acknowledged with pleasure.

The faithful coöperation, in harmonious Christian work, of the Catholic chaplain, and the prison visitation and Sabbath services in connection with their special work, are noted with equal pleasure and consideration.

Similar words of commendation may also be said with reference to the practical work of the Salvation Army in their personal efforts among the prisoners, and practical aid to outgoing prisoners, as already noted.

Very respectfully,

A. DRAHMS,
Chaplain and Librarian.

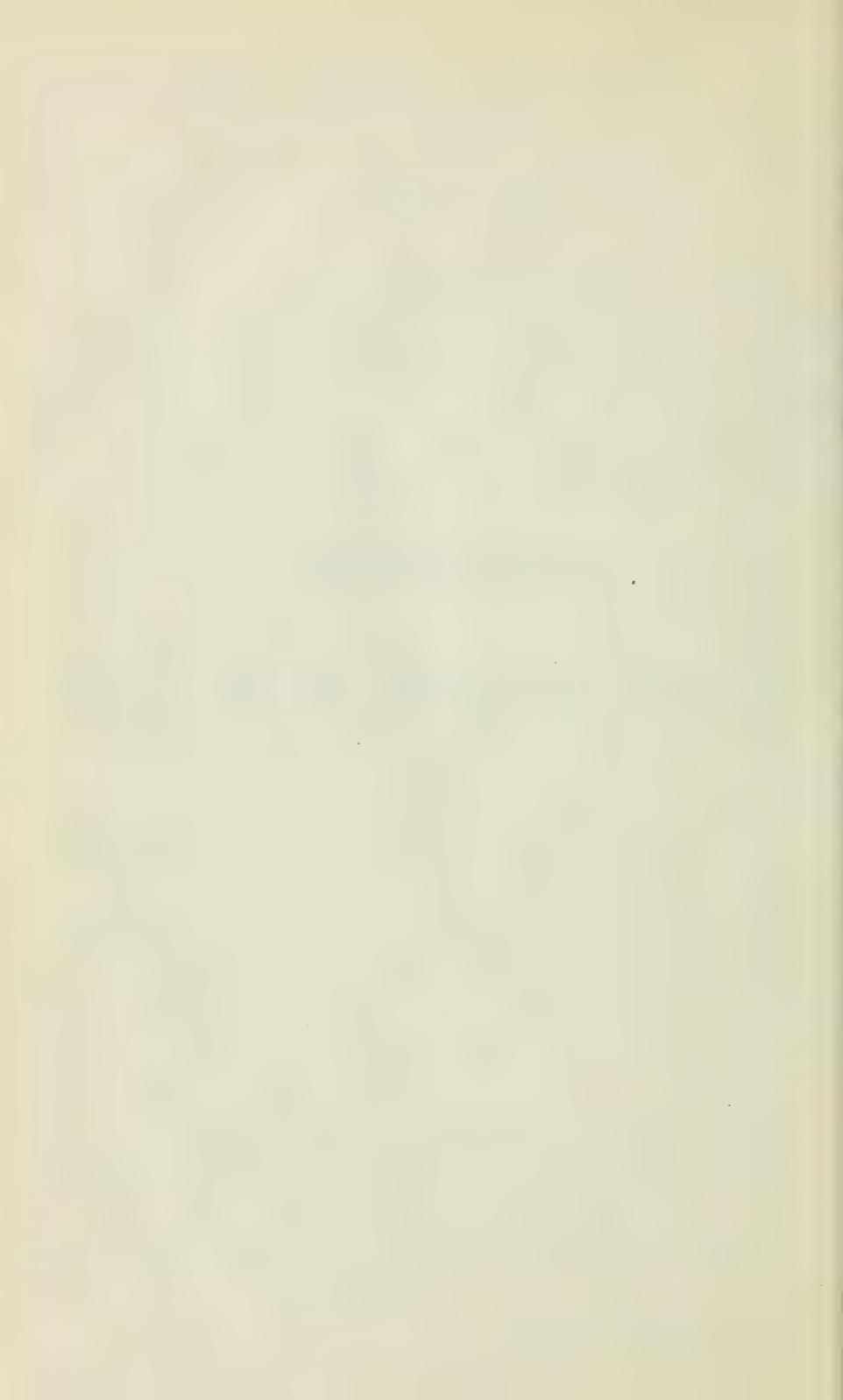
BIENNIAL REPORT

OF THE

WARDEN OF FOLSOM STATE PRISON,

FOR THE

FORTY-SIXTH AND FORTY-SEVENTH FISCAL YEARS, ENDING JUNE 30, 1896.



WARDEN'S REPORT.

To the Honorable the State Board of Prison Directors:

GENTLEMEN: I have the honor to submit herewith the biennial report of the Folsom State Prison for the forty-sixth and forty-seventh fiscal years, ending June 30, 1896. The accompanying reports of the Clerk, General Overseer, and Physician contain, in detail, statistical information, showing the various transactions of the prison.

In Table No. 5 of Clerk's report, it will be seen that the per capita per diem cost of ordinary maintenance during the forty-sixth fiscal year was 36.22 cents; daily average number of prisoners on hand, 791.63. For the forty-seventh fiscal year the per capita per diem cost for ordinary maintenance (see Table No. 6 of Clerk's report) was 32.5 cents; average daily number of prisoners, 891.42. In the latter year an increase of nearly 100 prisoners caused a reduction of nearly 4 cents per capita daily, in maintenance.

With a still larger increase of prisoners, the per capita per diem cost would be still further reduced, as the fixed charges, such as salaries of officers, does not increase in proportion to the number of prisoners. We consider this a very good showing, under the conditions that exist at the Folsom Prison. The manner in which we work our convicts, scattered long distances apart, without restraining walls, necessitates a larger proportion of guards than any prison I know of in the United States. For this reason the salary payroll has always been out of proportion to the other expenses of the prison, and in that particular it cannot be reduced, however much we may economize in other ways. It averages about 47% of the total cost.

We are now receiving benefits derived from several years of hard labor upon the various improvements about the prison—free power, free water, free ice, and practically free light, are material factors in reducing the expenses of a large institution of this kind. The cultivation of the farm, made possible by plenty of water for irrigation, with its large output of vegetables, fruit, grapes, and hay for stock, also aids materially in reducing the cost of maintenance.

In this connection, I again urge the necessity for the purchase of additional lands adjacent to the prison. The State owns 483 acres of land. This is not sufficient for the requirements of the prison. A much larger body of land could be made to pay big interest upon its cost.

On each side of us are tracts of land that can now be purchased at a minimum figure. The time will come when the State will absolutely require additional land, and a very much larger price will have to be paid. I earnestly recommend the purchase of not less than 1,000 acres additional land. It need not all be accomplished at one session of the Legislature; but the necessity for obtaining additional land is so apparent, and the benefits to be derived therefrom so absolutely certain, that argument upon the subject should be unnecessary.

The appropriation of \$219,000 for the forty-sixth and forty-seventh fiscal years, is a reduction of more than \$20,000 from previous estimates. Notwithstanding the increase of more than 100 prisoners, we will get through this year without a deficiency, by drawing on our Contingent Fund for about \$10,000. The appropriation for the ensuing two years will have to be increased, as the prospects are for a large increase of prisoners.

The health of the inmates of the prison continues good. The mortality report shows a death-rate of about eight to the thousand. This is far below any institution of the kind to my knowledge. It demonstrates the efficacy of absolute cleanliness and a proper regard to hygienic conditions.

During the year just closed, we completed the new convict dining-room and kitchen, and officers and guards' quarters. The dining-room is well lighted and ventilated; commodious, clean, and capable of seating 1,400 convicts. The kitchen is supplied with all modern appliances; first-class ranges, a complete steam cooking-plant, with copper urns for tea and coffee, and a large and commodious oven for baking bread. We find these improvements to be of material benefit, both in point of economy and satisfaction with which a large body of men can be fed. The steam cooking-plant enables us to change the diet almost daily by different methods in preparing food. This gives satisfaction to the men, promotes good health, and is in every respect an improvement upon the old methods. The cost of supplying three meals daily to the convicts has been reduced to $7\frac{1}{2}$ cents per capita, and, when the variety and excellence of the food and its method of preparation are taken into consideration, this is an extremely low figure. There has not been a complaint made about the food for more than two years, which is evidence that it is entirely satisfactory to the convicts.

The officers and guards' building, the gateway and wall on the north side of the prison, and the steps of solid stone in front of the main building, are monuments of industrial skill, and, architecturally, will compare with any work of similar character in California.

THE ROCK-CRUSHER.

At the last session of the Legislature an appropriation of \$30,000 was made to erect a rock-crushing plant at this prison, for the purpose of quarrying and crushing road-metal to construct highways in the various counties and cities of the State. The erection of this plant was a tedious and difficult job. The face of the quarry, rising some forty odd feet immediately above the canal, required that the canal should be bridged, to prevent the refuse from blocking it. The location of the bunkers and screen on one side of the canal and the rock-crusher on the other, connected by an elevator carrying the prepared road-metal from the crusher to the screen, eighty feet high, was a difficult and delicate piece of engineering. However, it was successfully accomplished.

We began crushing rock for sale about the middle of June, and have continued steadily since. Some difficulty was experienced in freeing the quarry from refuse, as all the waste had to be taken over the canal and loaded on cars. The crusher has now been in operation two months and a half, and has demonstrated that, under the provisions of the law requiring the prison to furnish the labor free, and the power free, we can turn out the very best road-metal, on the cars at the prison, for a minimum cost of 25 cents per ton. There is in sight enough first-class macadam rock to last several years. For the month of August we quarried and crushed over 8,000 tons, an average of over 320 tons daily. The crusher was not operated more than three hours and a half daily to produce this amount. For the ensuing season, when the quarry is properly opened, we can certainly produce from 500 to 700 tons daily.

By arrangement with the Southern Pacific Railroad Company, the cost of transportation was fixed at a very low rate. Taking the two main points of distribution, Sacramento and Stockton, for example, the freight rate is 25 cents per ton to the former and 45 cents per ton to the latter. This enables us to deliver crushed road-metal at Stockton for 75 cents per ton, and at Sacramento for 50 cents per ton. As the former price for similar road-metal, although not nearly so good, was \$1 90 per ton, delivered in each of these two cities, it will be readily seen that an immense saving in the cost of improving streets and building roads is effected by the operation of this plant. A large saving to the taxpayers for the construction of streets and roads, having the effect of lowering taxes, is itself compensation for the expense of the plant.

The power furnished for this plant is delivered from our air-compressor at the State power-house. That is inadequate for the purpose, and has been used temporarily, because the appropriation made by the last Legislature was not sufficient to purchase a compressor of proper size and power. The Legislature should provide an additional appropriation for a 250 horse-power air-compressor.

Some amendments to the law should be made so as to render its operation less cumbersome, and to provide for the sale of the output of the plant when it is not required for highway purposes.

SEWAGE.

For some years past the citizens of Sacramento City have complained seriously against the emptying of prison sewage into the American River. The question has been brought up many times, but no attempt has been made to remedy the evil. In May last the State Board of Health served notice on the prison authorities, calling attention to the law and demanding that some provision be made to obviate this difficulty. It is clearly within the province of the State Board of Health to regulate these matters, and they having taken official notice of the matter, it becomes necessary to adopt some other method of disposing of the prison sewage. This will involve a pumping plant and pipe-line to carry it out on the farm, to be deodorized and used as fertilizer. Before the meeting of the Legislature an estimate will be prepared of the cost of such a plant. The Legislature should make the necessary appropriation to prevent the further pollution of the American River from this source. While it is true that Sacramento and other cities are guilty of the same offense against the law, there is no excuse for State institutions violating a plain provision of the statute. They should, at least, set the example of complying with the law, even though cities and towns fail to do so. The public health cannot be guarded too jealously. It is not enough to say that danger is remote, as no epidemics have yet occurred directly traceable to this evil. Epidemics have occurred in the past and will again in the future, and it will be too late to apply the remedy when a scourge of this kind is upon us.

EMPLOYMENT OF CONVICTS.

For the last nine years the many improvements at the Folsom Prison have kept constantly employed all the convicts confined therein. The question of what we shall do to keep them employed in the future must now be met and a proper decision rendered. It is certain that public feeling in California will not permit the employment of convict labor in competition with free labor; therefore, some scheme of employment other than a competitive one must be devised. The convicts must be kept at work. Every consideration of discipline, economy, reformation, and health demands this. I cannot contemplate keeping a large body of convicts in idleness without feeling that it is a crime against society, if not against humanity. Yet, it is no less the duty of the State to give proper attention to the demands of thousands of honest citizens who have never

committed crime and only demand the opportunity to labor for their daily bread.

It has been suggested that the convicts at the Folsom Prison might be employed in manufacturing articles for the use of the various State institutions. In theory this sounds well, but in practical operation it will be found that the demand is so small that, as a means of giving employment to any considerable number of convicts, it will prove a failure, as well as abortive in lessening expense. There are only 8,000 inmates of State institutions, of which 2,000 are confined in the State Prisons. The only articles that could be manufactured are shoes, blankets, clothing, hats, brooms, willowware, and tinware. I have obtained statistics of all public institutions in this State as to the amounts required yearly of these various articles, and have made careful estimates of the labor required to supply them.

The two prisons manufacture their own shoes. This would leave about 1,200 dozens to be manufactured for other institutions. Unless we tanned our own leather, so as to be independent of buying leather in the open market, we could not turn out shoes for a less price than is now being paid for them. The large factories employing improved machinery almost eliminate the factor of labor from the cost of boots and shoes. To produce these articles cheaply they must be manufactured in large quantities, the plant run regularly, and every item of expense carefully guarded. Otherwise, the free labor of the prisons would not successfully compete against the improved machinery on the outside. And, again, forty convicts, with aid of a sewing-machine or two could manufacture by hand all the shoes required by all the State institutions.

About 1,500 pairs of blankets are purchased annually, at an average cost of \$3 25 each. The same criticism as to the cost of shoe manufacture would apply to a small woolen mill. To produce blankets cheaply the mill must be run on a large scale, and every advantage taken of the market to purchase the raw material. The output must be regular, and, in fact, strict business principles must be adhered to in every department of the plant. It might be said that the woolen mill could also produce cloth for clothing; but this, too, is extremely doubtful. No woolen mill in California has paid expenses for some years past. We are now buying prison cassimere at 62½ cents, which five years ago we paid \$1 20 for, and other cloth in proportion. This could not be turned out at the prison for that price under any circumstances. The same may be said of other grades of cloth, such as would be used in ordinary suits. A plant of that kind would be in the same condition as the San Quentin jute mill—running at a constant loss, on account of the limited output and the unskilled labor employed in the mill. A saving to the asylums and other institutions could be made by buying the cloth in the open market and making it up into suits, either at the

asylums or at the prisons. No expensive plant is required for this, and a few men could make all the suits necessary for the inmates of our charitable and penal institutions.

What is true of a woolen mill is true of hats, caps, etc. The amount to be manufactured would not justify the purchase of the machinery; that is, as an element of profit to the prisons. I do not believe they could be produced as cheaply as they are now purchased in the market.

Willowware, but little is used; and of tinware, the largest element of cost is in the raw material, and not in the labor employed in putting it together.

As all these institutions are now supplied with furniture, the demand for that for some years to come will be small.

Again, the most serious objection to convict labor is not directed against the output of such labor so much as against the fact that the employment of convicts at the various trades has the effect of discharging annually several hundred convicts from prisons who are skilled operators, and thereby come in competition with free laborers who have not had the opportunity of being educated in their various trades at the expense of the State.

It will be seen from the above that the question of utilizing the labor of convicts must be met by the adoption of a broader and more comprehensive policy than has heretofore prevailed. The problem presses for a solution, and neither conditions nor the public temper can be ignored in the settlement.

The labor unions of San Francisco have, within the past year, adopted resolutions favoring the quarrying of stone by convict labor and placing it upon the market, undressed, at a low figure. This will have the effect of giving employment to a large number of laborers in preparing it for building purposes. While it will be injurious to some of the quarry-owners, it would be beneficial to a large number of stonecutters, stonemasons, laborers, and others employed in building, and at the same time afford an economical and durable building material for the cities of our State. The rock-crushing plant will give employment to about 250 convicts.

In concluding this subject, I would recommend, first, consolidation of the two prisons into one management; a reduction of the operating expenses to the lowest possible cost; the purchase of additional lands adjacent to Folsom Prison; enlarging the farm; raising more stock; producing a larger supply of vegetables, fruit, pork, bacon, and even beef; and the employment of a large number of prisoners in quarrying stone, placing it upon the market undressed at a price that will permit of its general use as a building material.

This seems to be, at least for some years to come, a practical solution of the convict labor problem. It will take four years' labor of all the

convicts now at Folsom, with two or three hundred more added, to prepare all the necessary buildings and improvements for the accommodation of the convicts now at the two prisons, and I feel satisfied that a sufficient saving over the present management can be made to fully repay the expense of consolidation, within a period of four years.

The discipline of the convicts for the past two years has been good, and the parole law continues to give satisfactory results, although but few of the convicts have been paroled, owing to the extreme care with which all applications have been considered by the Board and the officers of the prisons. The objections made to this law by the newspapers and public generally at the time of its passage have been dissipated by the careful manner in which it has been executed by those charged with the duty, and I think it will grow in favor as its beneficial results are more fully understood.

I take pleasure in acknowledging the cordial manner in which the officers of the prison have ably seconded the efforts of your Board and myself in improving the condition of the prison. To your honorable Board I am indebted for your cordial and uniform support, as well as the compliment of reelection to the position of Warden for a third term.

Respectfully submitted.

CHARLES AULL,
Warden.



CLERK'S REPORT.

STATE PRISON AT FOLSOM, July 1, 1896.

To the Honorable State Board of Prison Directors:

GENTLEMEN: I herewith submit for your consideration a full statement of the financial transactions of this prison for the forty-sixth and forty-seventh fiscal years, ending June 30, 1895, and June 30, 1896.

Very respectfully,

BRAINARD F. SMITH,

Clerk.

TABLE No. 1.

Cash Receipts during Forty-sixth Fiscal Year, ending June 30, 1895.

	1894.					
	July.	August.	September.	October.	November.	December.
Cash balance from forty-fifth fiscal year	\$5,649 68					
General appropriation for forty-fifth fiscal year	3,987 40	\$2,554 92			\$10,297 36	\$10,408 43
General appropriation for forty-sixth fiscal year		10,079 80	\$4,054 80	\$9,522 44	1,041 71	1,057 22
Improvements and repairs appropriation O. & G. Building		1,632 55		643 18		
United States Government				542 00		
Rentals	492 00			43 00	43 00	43 00
Sales—Quarry	40 00	43 00	43 00			
Hospital		55 00				
Ice	2 85	6 20	3 15		4 70	5 20
Subsistence	207 00	60 85	26 40	13 18	8 00	
Farm	40 70	56 40	65 35	38 49	43 10	49 40
Ammunition			9 00			
Old iron						
Forage	22 00	28 00	31 00	34 00	34 00	35 50
Sundries to officers and guards		2 30	21 95	5 00		
Shoe mendings		3 50	1 00	3 00	3 00	7 50
Rebates—Discharged prisoners				1 20	1 20	4 10
Freight		2 99		20	1 28	
Merchandise	3 25		2 95			
Telephone and telegraph	1 00	1 25	1 00	40	2 65	1 00
Salary		50 00				
State Treasury—Prison Fund		561 12				
Totals	\$10,445 88	\$15,137 88	\$4,259 60	\$10,844 89	\$11,480 00	\$11,611 35

TABLE No. 1—Continued.

	1895.						1894-95. Total.
	January.	February.	March.	April.	May.	June.	
Cash Receipts—Forty-sixth Fiscal Year.							
Cash balance from forty-fifth fiscal year							\$5,649 68
General appropriation for forty-fifth fiscal year	\$10,635 55	\$5,777 14	\$3,913 15	\$13,469 01	\$12,604 44	\$9,623 15	6,542 32
General appropriation for forty-sixth fiscal year							100,385 27
Improvements and repairs appropriation O. & G.							
Building	1,005 01	1,573 44	220 11	507 50	179 45		7,860 17
United States Government	645 00		453 50	1,147 70			3,280 20
Rentals	43 00	3 00	47 00	36 00	86 00		506 00
Sales—Quarry			175 00		42 40		272 40
Hospital	5 55	4 00	35	5 25	1 35	2 55	41 15
Ice	2 80		4 00		50		364 73
Subsistence	51 45	1 80	58 97	39 10	4 00	83 90	624 87
Farm					96 21		4 95
Ammunition						15 00	24 00
Old iron	98 35						98 35
Forage	43 00		49 00	28 00	59 50	29 00	393 00
Sundries to officers and guards	5 00	2 85	50	3 05	11 46	11 65	63 76
Shoe mendings	5 00	50	4 50	6 50	16 25	11 25	62 00
Rebates—Discharged prisoners		50		2 90	19 40	3 70	31 80
Freight	6 64		2 27				13 38
Merchandise	4 75				1 50		12 45
Telephone and telegraph	40		6 25		1 75	50	16 20
Salary							50 00
State Treasury—Prison Fund.							561 12
Totals	\$12,551 50	\$7,363 23	\$4,934 60	\$15,245 51	\$13,123 71	\$9,859 65	\$126,857 80

TABLE No. 2.

Cash Disbursements during Forty-sixth Fiscal Year, ending June 30, 1895.

	1894.					
	July.	August.	September.	October.	November.	December.
Cash Disbursements—Forty-sixth Fiscal Year.						
Merchandise and supplies, forty-fifth fiscal year.		\$2,818 25	\$5,703 65	\$5,291 13	\$6,156 30	\$6,140 98
Merchandise and supplies, forty-sixth fiscal year.			375 00			
Salaries, forty-fifth fiscal year.	\$3,987 40	3,949 25	4,058 95	3,948 30	3,904 85	4,364 15
Salaries, forty-sixth fiscal year.		802 83	829 72	643 18	1,041 71	1,057 22
Repairs and improvements, O. & G. Building.		319 20	142 35	154 90	192 45	146 15
Discharged prisoners.	159 25		8 15	70 80	2 50	
Expense account, sundries.			12 85	12 70		
Insane prisoners.						
Prison Directors' expense account.	304 50	35 00	35 00	35 00	35 00	35 00
Allowance in lieu board.		19 70	67 35	9 35	41 70	6 90
Telephone.		4 18	10 84	5 94	4 35	
Telegraphing.		8 45	13 05	23 00	8 10	14 75
Expressage.			43 63	13 65		28 95
Traveling expenses.	20 50		130 20			
Advertising.			80 00	80 00	80 00	80 00
Religious services.			20 00	20 00	40 00	40 00
Postage.		80 00				
Rentals, ranch.		37 50				
Rentals.		100 00				
Freights.		3 26	15 53	24 27	23 52	73 35
Power-house.		1,250 53				
Totals.	\$4,471 65	\$9,428 15	\$11,546 27	\$10,332 22	\$11,531 52	\$11,991 80

TABLE No. 3.

Cash Receipts during Forty-seventh Fiscal Year, ending June 30, 1896.

	1895.					
	July.	August.	September.	October.	November.	December.
Cash Receipts—Forty-seventh Fiscal Year.						
Cash balance from forty-sixth fiscal year	\$6,662 29					
General appropriation for forty-sixth fiscal year	11,558 07	\$5,556 70				
General appropriation for forty-seventh fiscal year		3,907 30	\$8,164 41	\$8,634 79	\$9,713 93	\$9,736 35
Improvements and repairs appropriation				966 00		
United States Government	839 50		100 00	500 25		
Sales—Quarry	255 00		2 50			
Hospital	2 60	2 45				
Ice	16 00	26 00	48 35	76 88	3 90	9 15
Subsistence	58 95	19 91	14 64	16 44	12 00	3 20
(Convict clothing)					14 84	24 45
Ammunition	9 50	4 50	1 50	2 50	1 00	
Forage	31 00			3 00	3 00	3 00
Shoe mending, etc.	3 00	1 50	1 00	3 00	3 50	3 00
Sundries to officers and guards	10 40	25	1 75	9 75	25	
Sundries (bulls and cement)	105 10			2 00		
Farm	6 00					
Road-metal						
Rebates—Freights						
Telephone and telegraph				1 70	1 60	
Salaries						
Merchandise	75					
Discharged prisoners	5 65	4 05				5 45
Rentals	36 00	6 00	6 00	6 00	3 00	3 00
Rock-crusher appropriation				5,686 36	775 18	675 97
Totals	\$19,599 81	\$9,528 66	\$8,340 15	\$15,908 67	\$10,532 20	\$10,463 57

TABLE No. 3—Continued.

	1896.					1895-96. Total.
	January.	February.	March.	April.	May.	June.
Cash balance from forty-sixth fiscal year.....						\$6,662 29
General appropriation for forty-sixth fiscal year.....	\$14,402 23	\$9,047 60	\$8,934 77	\$9,116 14	\$9,006 58	\$5,344 60
General appropriation for forty-seventh fiscal year.....	16,295 23	795 30	14 48	193 31		96,008 70
Improvements and repairs appropriation.....		1,010 90		960 20		17,298 32
United States Government.....				488 50		3,776 60
Sales—Quarry.....	428 00	15 00	45 64		116 60	1,948 99
Hospital.....	4 50	4 15	3 65	3 70	5 45	42 30
Ice.....	54 97			52 00	14 15	371 13
Subsistence.....	372 07	95 61	71 90	78 95	90 05	857 81
Convict clothing.....		300 00				300 00
Ammunition.....	3 00		6 80	1 00	25	30 30
Forage.....	249 02	51 00	48 50	50 00	42 90	481 42
Shoe mendings, etc.....	25 50	7 50	5 00	10 25	7 75	73 00
Sundries to officers and guards.....	76 55	9 15	6 05	9 85	1 60	125 60
Sundries (bulls and cement).....						107 10
Farm.....		14 74				33 20
Road.....	12 46					33 20
Road metal.....						1,427 50
Rebates—Freights.....						
Telephone and telegraph.....	25	50				4 05
Salaries.....					25 00	25 80
Merchandise.....						75
Discharged prisoners.....	1 60	3 20				19 95
Rentals.....	157 31	139 17	48 00	48 00	48 00	500 48
Rock-crusher appropriation.....	976 10		13,151 25	184 81	409 19	23,196 36
Totals.....	\$33,058 79	\$11,494 07	\$22,336 04	\$11,196 71	\$9,767 52	\$8,180 23
						\$170,406 42

TABLE No. 4.

Cash Disbursements during Forty-seventh Fiscal Year, ending June 30, 1896.

1895.

Cash Disbursements—Forty-seventh Fiscal Year.	July.	August.	September.	October.	November.	December.
Merchandise and supplies, forty-sixth fiscal year.....	\$7,275 28	\$5,402 85	\$3,975 56	\$4,474 11	\$5,511 28	\$5,627 40
Merchandise and supplies, forty-seventh fiscal year.....						
Repairs and improvements, O. & G. Building.....						
Rock-crusher plant.....						
Salaries, forty-sixth fiscal year.....	4,132 55			5,686 36	775 18	675 97
Salaries, forty-seventh fiscal year.....		3,907 30	3,996 95	4,015 00	4,083 60	4,349 10
Discharged prisoners.....	171 70	166 70	161 65	255 25	208 95	167 65
Expense Account—Sundries.....		52 40	2 50	9 50	2 50	
Telephones.....	2 00					5 00
Telegraphing.....	8 55	7 90	4 00	10 00		4 81
Expressage.....	8 70	9 33	7 40	12 22	6 63	8 35
Traveling.....	18 70	11 30	11 10	7 95	13 15	22 20
Traveling.....	26 80	26 30	13 15	13 15		25 00
Executions.....						
Advertising.....		69 62				
Religious services.....	80 00	80 00	80 00	80 00	80 00	80 00
Postage.....	20 00	53 20	25 00	20 00	20 00	20 00
Freights.....	42 99	38 60	92 90	22 86	39 97	22 50
Transportation of insane prisoners.....						9 30
Transportation of prisoners.....						
Rentals, ranch.....		100 00				
Electric light department.....						
Totals.....	\$11,787 27	\$9,925 50	\$8,370 21	\$14,605 90	\$10,718 06	\$11,017 28

TABLE No. 4—Continued.

[illegible]

TABLE No. 5.

Cost of Maintenance for the Forty-sixth Fiscal Year, ending June 30, 1895.

	Inventory, July 1, 1894.	Issues, 1894-1895.	Totals.	Inventory, July 1, 1895.	Balances.
Warden's mess	\$57 35	\$1,266 63	\$1,323 98	\$42 71	\$1,281 27
Officers and Guards' mess ..	1,631 30	7,970 27	9,601 57	1,598 19	8,003 38
Prisoners' mess	3,342 66	21,214 11	24,556 77	2,545 13	22,011 64
Hospital Department	2,041 03	1,917 17	3,958 20	2,061 61	1,896 59
Commissary Department	726 47	128 06	854 53	695 84	158 69
Captain of the Guard's Dept.	16,230 87	1,688 72	17,919 59	17,554 12	365 47
Turnkey's Department	16,340 60	15,771 90	32,112 50	19,284 35	12,828 15
Engineer's Department	9,301 80	495 47	9,797 27	9,280 68	516 59
Laundry Department	1,044 79	1,199 75	2,244 54	1,026 27	1,218 27
Stock Department	5,991 80	3,341 33	9,333 13	5,707 81	3,625 32
Warden's office	1,917 83	35 89	1,953 72	1,913 11	40 61
Clerk's office	51 60	56 85	108 45	65 92	42 53
Furniture and fixtures	6,262 37	114 00	6,376 37	6,271 82	104 55
Repairs		60 72	60 72		60 72
Wooden buildings	18,567 50	1,012 85	19,580 35	18,565 15	1,015 20
Light Department	10,470 43	2,227 53	12,697 96	10,520 07	2,177 89
Farm Department	5,578 55	1,695 39	7,273 94	4,454 92	2,819 02
Expense account		2,035 74	2,035 74		2,035 74
Profit and loss		132 39	132 39		132 39
Salaries		47,128 45	47,128 45		47,128 45
Discharged prisoners		2,170 45	2,170 45		2,170 45
Prison Directors		307 50	307 50		307 50
Transportation of insane prisoners		44 65	44 65		44 65
Transportation of prisoners		5 80	5 80		5 80
Totals	\$99,556 95	\$112,021 62	\$211,578 57	\$101,587 70	\$109,990 87
Deduct receipts from farm					5,334 27
Net cost of maintenance					\$104,656 60

Average daily number of prisoners 791.63
 Average cost per capita per diem..... 36.22+ cents.

TABLE No. 6.

Cost of Maintenance for the Forty-seventh Fiscal Year, ending June 30, 1896.

	Inventory, July 1, 1895.	Issues, 1895-1896.	Totals.	Inventory, July 1, 1896.	Balances.
Warden's mess.....	\$42 71	\$760 93	\$803 64	\$45 51	\$758 13
Officers and Guards' mess...	1,598 19	7,980 79	9,578 98	1,222 12	8,356 86
Prisoners' mess.....	2,545 13	24,531 55	27,076 68	2,176 80	24,899 88
Hospital Department.....	2,061 61	2,574 34	4,635 95	1,974 05	2,661 90
Commissary Department.....	696 84	307 20	1,004 04	686 03	318 01
Captain of the Guard's Dept.	11,742 71	1,174 80	12,917 51	11,893 54	1,023 97
Turnkey's Department.....	19,284 35	11,192 72	30,477 07	20,749 71	9,727 36
Engineer's Department.....	9,280 68	1,160 32	10,441 00	8,992 20	1,448 80
Laundry Department.....	1,026 27	1,307 10	2,333 37	1,118 36	1,215 01
Stock Department.....	5,478 07	2,644 40	8,122 47	5,919 79	2,202 68
Warden's office.....	1,024 30	100 11	1,124 41	940 30	184 11
Clerk's office.....	815 73	432 63	1,248 36	1,064 24	184 12
Furniture and fixtures (Warden's house).....	6,271 82	8 53	6,280 35	6,253 83	26 52
Repairs.....		652 19	652 19		652 19
Wooden buildings.....	18,565 15	97 29	18,662 44	18,634 95	27 49
Light Department.....	11,674 68	3,224 45	14,899 13	12,487 14	2,411 99
Farm Department.....	4,454 92	1,575 26	6,030 18	4,221 97	1,808 21
Expense account.....		1,838 11	1,838 11		1,838 11
Profit and loss (Commissary)		5 33	5 33		5 33
Salaries.....		49,449 10	49,449 10		49,449 10
Discharged prisoners.....		2,488 55	2,488 55		2,488 55
Escaped prisoners.....		1 75	1 75		1 75
Transportation of insane prisoners.....		18 45	18 45		18 45
Transportation of prisoners.		20 70	20 70		20 70
General Overseer.....	4,934 54	735 85	5,670 39	4,793 15	877 24
Totals.....	\$101,497 70	\$114,282 45	\$215,780 15	\$103,173 69	\$112,606 46
Deduct receipts from farm.....					6,621 70
Net cost of maintenance.....					\$105,984 76

Average daily number of prisoners..... 890.42
 Average cost per capita per diem 32.5 + cents.

TABLE No. 7.

Earnings for the Forty-sixth Fiscal Year, ending June 30, 1895.

	Dr.	Cr.	Total.
<i>Quarry.</i>			
Stock on hand, inventory July 1, 1895		\$9,163 83	
Receipts and sales, forty-sixth fiscal year		1,351 41	
			\$10,515 24
Stock on hand, inventory July 1, 1894	\$8,244 79		
Issues during forty-sixth fiscal year	1,412 84		
			9,657 63
Earnings for forty-sixth fiscal year			\$857 61
<i>Farm.</i>			
Stock on hand, inventory July 1, 1895		\$4,454 92	
Receipts and sales, forty-sixth fiscal year		7,434 27	
			\$11,889 19
Stock on hand, inventory July 1, 1894	\$5,578 55		
Issues during forty-sixth fiscal year	1,695 39		
			7,273 94
Earnings for forty-sixth fiscal year			\$4,615 25
Total earnings for forty-sixth fiscal year			\$5,472 86

TABLE No. 8.

Earnings for the Forty-seventh Fiscal Year, ending June 30, 1896.

	Dr.	Cr.	Total.
<i>Quarry.</i>			
Stock on hand, inventory July 1, 1896.....		\$9,260 88	
Receipts and sales, forty-seventh fiscal year.....		7,221 48	
			\$16,482 36
Stock on hand, inventory July 1, 1895.....	\$9,163 83		
Issues during forty-seventh fiscal year.....	5,892 36		
			15,056 19
Earnings for forty-seventh fiscal year.....			\$1,426 17
<i>Farm.</i>			
Stock on hand, inventory July 1, 1896.....		\$6,381 97	
Receipts and sales, forty-seventh fiscal year.....		4,521 70	
			\$10,913 67
Stock on hand, inventory July 1, 1895.....	\$4,454 92		
Issues during forty-seventh fiscal year.....	1,575 26		
			6,030 18
Earnings for forty-seventh fiscal year.....			\$4,883 49
Total earnings for forty-seventh fiscal year.....			\$6,309 66

TABLE No. 9.

Assets and Liabilities, July 1, 1895.

Available assets:		
Cash on hand	\$6,662 29	
Cash balance in State Treasury (Prison Fund)	634 18	
Cash balance in State Treasury (General Fund)	6,542 36	
Cash balance in State Treasury (O. & G. Building, etc., Fund)	20,000 00	
Due from sundry debtors	5,253 13	
		\$39,091 96
Liabilities:		
Unpaid supply claims, June, 1895	\$13,397 27	
Unpaid salaries for June, 1895	3,987 40	
		17,384 67
Excess of available assets		\$21,707 29
Permanent assets:		
Warden's mess	\$42 71	
Officers and Guards' mess	1,598 19	
Prisoners' mess	2,545 13	
Hospital Department	2,061 61	
Commissary Department	695 84	
Captain of the Guard's Department	17,554 12	
Turnkey's Department	19,284 35	
Engineer's Department	9,280 68	
Laundry Department	1,026 27	
Stock Department	5,707 81	
Warden's office	1,913 11	
Clerk's office	65 92	
Furniture and fixtures (Warden's house)	6,271 82	
Prison improvements	614,663 09	
Wooden buildings	18,565 15	
Railroad material	3,061 24	
Quarry Department	9,163 83	
Light Department	10,520 07	
Farm Department	4,454 92	
Merchandise (supplies in stock)	6,221 80	
Ice plant	3,852 23	
Real estate	15,000 00	
New kitchen and dining-room	14,015 19	
State power-house (additions)	2,718 72	
		770,283 80
Total excess of assets		\$791,991 09

TABLE No. 10.
Assets and Liabilities, July 1, 1896.

Available assets:		
Cash on hand.....	\$12,435 86	
Cash balance in State Treasury (Prison Fund).....	73 06	
Cash balance in State Treasury (General Fund).....	13,491 30	
Cash balance in State Treasury (O. & G. Building, etc., Fund).....	2,701 68	
Cash balance in State Treasury (Rock-crusher Fund).....	6,803 64	
Due from sundry debtors.....	3,559 74	
		\$39,065 28
Liabilities:		
Unpaid supply claims, June, 1896.....	\$13,778 33	
Unpaid salaries for May and June, 1896.....	8,237 30	
		22,015 63
Excess of available assets.....		\$17,049 65
Permanent assets:		
New kitchen and dining-room.....	\$31,490 11	
Warden's mess.....	45 51	
Officers and Guards' mess.....	1,222 12	
Prisoners' mess.....	2,176 80	
Hospital Department.....	1,974 05	
Commissary Department.....	686 03	
Captain of the Guard's Department.....	11,893 54	
Turnkey's Department.....	20,749 71	
Engineer's Department.....	8,992 20	
Laundry Department.....	1,118 36	
Stock Department.....	5,919 79	
Warden's office.....	940 30	
Clerk's office.....	1,064 24	
Furniture and fixtures (Warden's house).....	6,253 83	
Prison improvements.....	623,598 05	
Wooden buildings.....	18,634 95	
Railroad materials.....	3,061 54	
Quarry Department.....	9,260 88	
Light Department.....	12,487 14	
Farm Department.....	6,381 97	
Merchandise (supplies in stock).....	2,422 47	
Rock-crusher plant.....	25,866 74	
Ice plant.....	3,852 13	
Real estate.....	15,000 00	
General Overseer's Department.....	4,793 15	
		\$819,885 61
Total excess of assets.....		\$836,935 26

General appropriation	210,385 23	14,015 19	210,385 23	14,015 19	210,385 23	14,015 19
New kitchen and dining-room		73 06		73 06		73 06
State Treasury, Prison Fund						
Sundry creditors	13,397 27		13,397 27		13,397 27	
Salaries		47,128 45		47,128 45		47,128 45
Sundry officers and guards (June, 1895, salaries)	3,987 40		3,987 40		3,987 40	
Officers and Guards' building, etc., appropriation	10,000 00		10,000 00		10,000 00	
Sundry debtors:						
San Quentin Prison		157 50		157 50		157 50
W. H. Playmire		285 00		285 00		285 00
Southern Pacific Company		500 25		500 25		500 25
Ecklon & Sons		105 10		105 10		105 10
J. B. Wright		450 00		450 00		450 00
Carlow Bros.		20 00		20 00		20 00
F. T. Johnson		155 00		155 00		155 00
J. L. House		120 66		120 66		120 66
Folsom Water Power Co.		1,381 39		1,381 39		1,381 39
United States of America		839 50		839 50		839 50
State Power-House		2,718 72		2,718 72		2,718 72
Preston School of Industry		1,228 73		1,228 73		1,228 73
Prison Directors' expense account		307 50		307 50		307 50
Balance to Cr. State Prison at Folsom, July 1, 1895				763,658 88		
Totals	\$883,951 78	\$770,283 80	\$883,951 78	\$872,059 46	\$781,043 55	\$781,043 55

TABLE No. 12.

Trial Balance at End of Forty-seventh Fiscal Year, ending June 30, 1896.

Accounts.	Trial Balance, June 30, 1896.		Inventory, July 1, 1896.	State Prison at Folsom, July 1, 1896.		Trial Balance, July 1, 1896.	
	Dr.	Cr.		Dr.	Cr.	Dr.	Cr.
Cash on hand.....	\$12,435 86					\$12,435 86	
Warden's mess.....	803 64		\$45 51	\$758 13		45 51	
Officers and Guards' mess.....	9,578 98		1,222 12	8,356 86		1,222 12	
Prisoners' mess.....	27,076 68		2,176 80	24,899 88		2,176 80	
Hospital Department.....	4,635 95		1,974 05	2,661 90		1,974 05	
Commissary Department.....	1,004 04		686 03	318 01		686 03	
Captain of the Guard's Department.....	12,917 51		11,893 54	1,023 97		11,893 54	
Turnkey's Department.....	30,477 07		20,749 71	9,727 36		20,749 71	
Engineer's Department.....	10,441 00		8,992 20	1,448 80		8,992 20	
Laundry Department.....	2,833 37		1,118 36	1,715 01		1,118 36	
Stock Department.....	8,122 47		5,919 79	2,202 68		5,919 79	
Warden's office.....	1,124 41		940 30	184 11		940 30	
Clerk's office.....	1,248 36		1,064 24	184 12		1,064 24	
Furniture and fixtures (Warden's house).....	6,280 35		6,253 83	26 52		6,253 83	
Prison improvement.....	623,598 05		623,598 05			623,598 05	
Repairs.....	652 19			652 19			
Wooden buildings.....	18,662 44		18,634 95	27 49		18,634 95	
Railroad material.....	5,061 54		3,061 54			3,061 54	
Quarry Department.....	7,834 71		9,260 88		\$1,426 17	9,260 88	
Light Department.....	14,899 13		12,487 14	2,411 99		12,487 14	
Ice plant.....	3,852 13		3,852 13			3,852 13	
Farm.....	1,508 48		6,381 97		4,873 49	6,381 97	
General expense account.....	1,838 11			1,838 11			
Merchandise (Commissary).....	2,422 47		2,422 47			2,422 47	
General Overseer.....	5,670 39		4,793 15	877 24		4,793 15	
Loss and gain (Commissary).....	5 33			5 33			
Salaries.....	49,449 10			49,449 10			
Discharged prisoners.....	2,488 55			2,488 55			
State Power-House at Folsom.....	177 30		177 30			177 30	

	1 75	1 75	1 75	1 75	1 75
	18 45	18 45	18 45	18 45	18 45
	20 70	20 70	20 70	20 70	20 70
Escaped prisoners					
Transportation of insane prisoners					
Transportation of prisoners					
State Prison at Folsom	\$763,568 88			763,568 88	
Real estate	15,000 00		15,000 00		15,000 00
Rock-crusher Fund	23,196 36				23,196 36
General appropriation (forty-sixth fiscal year)	17,114 77			17,114 77	
General appropriation (forty-seventh fiscal year)					
Officers and Guards' building, etc., appropriation	96,008 70			96,008 70	
State Treasury, Prison Fund	17,298 32			17,298 32	
Sundry creditors (June supply claims)	73 06				73 06
Sundry officers and guards (May and June salaries)	13,778 33				13,778 33
Officers and Guards' building, convicts' kitchen and dining-room	8,237 30				8,237 30
Sundry debtors:					
San Quentin Prison	31,490 11		31,490 11		31,490 11
W. H. Playmire	97 50				97 50
J. B. Wright	295 00				295 00
J. Carroll	450 00				450 00
Southern Pacific Co.	68 37				68 37
J. O. Hedlund & Co.	192 00				192 00
J. L. House	165 00				165 00
	127 33				127 33
Folsom Water Power Co.					
United States of America	1,215 54			1,215 54	
Sundry debtors, road-metal account	949 00			949 00	
Rock-crusher plant					
Balance to Cr. State Prison at Folsom, July 1, 1896.	25,866 74		25,866 74		25,866 74
Totals	\$940,630 16	\$940,630 16	\$20,062 91	\$900,290 33	\$836,131 57

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EXPERT'S REPORT.

STATE PRISON AT FOLSOM, CAL., August 11, 1896.

I hereby certify that I have compared the biennial report of Brainard F. Smith, Clerk of Folsom Prison, for the fiscal years ending June 30, 1895, and June 30, 1896, with the several accounts as kept in the official books of the prison, and I find it to be a true and correct statement from the said books. I also certify that the Clerk has kept the accounts of Folsom Prison for said fiscal years in such a manner as to exhibit clearly all its financial transactions, and when any sum of money was paid to the Warden the same has been properly entered on the books by the Clerk.

I also certify that I find authorizations, duly and properly signed by a majority of the State Board of Prison Directors, for all disbursements included in said report for the fiscal years ending June 30, 1895, and June 30, 1896, and that the Warden has required vouchers for all moneys by him expended during said fiscal years, and safely kept the same on file in his office at the prison.

PAUL BUNKER,
Expert Accountant for the State Board of Prison Directors.

GENERAL OVERSEER'S REPORT.

STATE PRISON AT FOLSOM, CAL., July 1, 1896.

HON. CHARLES AULL, *Warden*:

DEAR SIR: Herewith I submit, in tabular form, a report of the business of the General Overseer's Department, for the year ending June 30, 1896.

While the clothing issue continues heavy, consequent to the character of the work carried on at this prison, viz.: quarrying, cutting, and drilling stone, it shows a material decrease as compared with previous years. The decrease would have been much greater but for the employment of a large number of convicts at the rock-crushing plant, a labor that is particularly severe on pants and shoes.

The annexed table illustrates the character and extent of the reduction of the clothing issue as compared with the previous year.

Respectfully,

J. E. BAKER,
General Overseer.

CLOTHING ISSUE FOR 1894-95 AND 1895-96.

	'94-'95.	'95-'96.	Decrease.	Increase.	Av. No. Prisoners.		Per Capita.	
					'94-'95.	'95-'96.	'94-'95.	'95-'96.
Hats.....	1,472	1,330	142	-----	791	890	1.86	1.49
Socks.....	4,441	3,731	710	-----	791	890	5.61	4.08
Shoes.....	1,818	1,888	-----	70	791	890	2.30	2.12
Pants.....	2,057	2,395	-----	338	791	890	2.60	2.58
Shirts.....	1,802	1,889	-----	87	791	890	2.28	2.12
Underclothes.....	2,311	2,289	22	-----	791	890	2.92	2.57

TABLE No. 1.—Prison Account from July 1, 1881, to June 30, 1896.

	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	Total.
Received and Discharged.																	
By commitment	96	85	131	217	230	225	150	152	241	265	197	237	210	263	324	338	3,361
Returned witnesses	2	1	9	4	6	2	4	2	5	6	7	7	8	8	7	12	90
Paroled	2	5	1	3	1	3	3	3	3	2	6	3	2	---	---	---	1
Escapes recaptured	---	---	---	---	---	---	---	1	1	1	---	1	1	---	1	1	36
Returned from asylum	---	---	---	---	---	---	---	1	1	1	---	6	15	---	13	3	7
Received U. S. prisoners	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43
By order of Court	---	---	2	2	2	1	1	---	---	1	---	---	---	2	1	1	12
By transfer from San Quentin	253	60	---	50	2	4	1	7	11	51	1	4	3	4	---	3	454
Returned with additional commitment	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3
Total received	353	151	143	276	242	235	159	166	262	328	211	259	241	277	346	358	4,007
Paroled	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Per Act	36	114	93	75	48	42	69	80	23	42	41	52	56	4	3	4	11
Paroled	1	3	11	11	11	1	8	4	9	1	7	3	---	68	53	75	967
Escaped	6	4	4	6	4	2	2	2	3	3	5	2	2	1	3	2	76
Suicided	1	---	---	1	1	2	1	---	---	---	---	---	---	---	---	---	50
As witnesses	2	2	9	4	6	2	4	2	5	6	7	8	8	8	7	12	6
By commutation	---	---	1	8	22	16	13	1	1	2	1	6	1	2	4	---	92
For new trial	1	4	1	2	5	4	2	1	1	4	1	4	3	3	3	5	81
Died and killed	3	6	13	7	7	7	15	7	6	3	15	12	9	6	9	7	43
Per Act and restored	---	---	---	---	32	71	80	88	83	93	97	133	176	140	138	153	132
By order of Court	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,284
Conditionally pardoned	1	---	1	1	3	---	---	---	---	---	1	---	---	1	---	1	4
Pardoned by the President	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2
By writ of habeas corpus	---	---	---	1	2	---	---	---	---	1	---	---	---	---	---	---	6
By writ of habeas corpus	---	---	2	3	1	---	---	1	---	---	---	---	---	---	1	---	2
Killed by fellow convict	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3
Transferred to San Quentin	---	---	---	---	3	3	4	157	---	50	3	---	6	---	2	24	249
U. S. prisoners discharged	---	---	---	---	---	---	---	---	---	---	---	1	14	3	1	3	21
By order of Court, discharged	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	7
By certificate of probable cause	---	2	---	---	---	---	---	1	---	---	---	1	---	---	---	---	3
Killed while attempting to escape	---	---	---	---	---	---	---	---	1	1	---	---	4	---	---	---	8
For trial on additional charge	1	1	---	---	1	---	---	---	---	---	---	---	---	---	---	---	1
For trial on new charge	1	---	---	2	1	---	---	---	---	1	---	---	---	---	---	---	4
To insane asylum	---	1	2	2	---	2	---	7	3	3	6	4	3	1	3	1	38
Executed	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4	4
Total discharged	56	139	144	118	147	152	198	350	134	212	184	226	282	237	230	293	3,102

TABLE No. 2.
Recapitulation of Received and Discharged Prisoners from July 1, 1894, to June 30, 1896.

Months.	1894		1895		1896		Totals	
	July	August	September	October	November	December	January	February
By Commitment	27	41	28	37	16	26	34	19
Habeas Corpus Returns	1	1	2	2	1	1	1	1
Witnesses Returned	1	1	2	2	1	1	1	1
By Order Court	2	2	2	2	2	2	2	2
United States Prisoners	2	2	2	2	2	2	2	2
From Insane Asylum	1	1	1	1	1	1	1	1
From San Quentin	1	1	1	1	1	1	1	1
Total	30	41	29	39	18	26	34	19
Per Act and Restored	12	13	9	11	13	10	9	12
United States Prisoners	1	1	1	1	1	1	1	1
To Insane Asylum	1	1	1	1	1	1	1	1
To San Quentin	1	1	1	1	1	1	1	1
By Order Court	2	2	2	2	2	2	2	2
Habeas Corpus	1	1	1	1	1	1	1	1
As Witnesses	2	2	2	2	2	2	2	2
New Trial	1	1	1	1	1	1	1	1
Committed	1	1	1	1	1	1	1	1
Executed	1	1	1	1	1	1	1	1
Pardoned	1	1	1	1	1	1	1	1
Escaped	2	2	2	2	2	2	2	2
Per Act	2	2	2	2	2	2	2	2
Paroled	2	2	2	2	2	2	2	2
Died	2	2	2	2	2	2	2	2
Total	20	27	17	17	14	14	14	14

TABLE No. 3.

Recapitulation of Population.

Months.	Population for Month.	Daily Average.	Summary.
1894—July	22,383	722.03+	
August	23,114	745.61+	
September	22,504	750.13+	
October	23,946	772.46+	
November	23,480	782.66+	
December	24,547	791.83+	
Gross first half fiscal year	139,974	4,564.72+	760.78+
1895—January	24,842	801.35+	
February	22,720	811.42+	
March	25,302	816.19+	
April	24,959	831.57—	
May	25,849	833.84—	
June	25,205	840.16+	
Gross second half fiscal year	148,877	4,934.93	822.48
Gross fiscal year	288,851	9,499.65	791.63
1895—July	26,200	845.16+	
August	26,154	843.68—	
September	25,598	853.26+	
October	26,857	866.35+	
November	26,319	877.30	
December	27,486	886.64+	
Gross first half fiscal year	158,614	517.239	862.06+
1896—January	28,111	906.80	
February	26,871	926.58+	
March	28,907	932.48+	
April	27,742	924.73+	
May	28,568	921.55—	
June	27,186	900.62	
Gross second half fiscal year	167,385	5,512.76	918.79+
Gross fiscal year	325,999	10,685.15	890.42

TABLE No. 4.

Nativity and Race of Prisoners.

Nativity.	No.	Nativity.	No.
<i>United States.</i>		<i>Foreign.</i>	
Alabama	1	Africa	1
California	256	Australia	4
Colorado	1	Austria	4
Connecticut	2	Belgium	2
Delaware	1	Canada	11
District of Columbia	1	Central America	3
Georgia	2	China	59
Illinois	28	Denmark	2
Indiana	4	England	28
Indian Territory	2	France	7
Iowa	9	Germany	47
Kansas	2	Hawaii	1
Kentucky	17	Holland	1
Louisiana	2	Ireland	39
Maine	5	Italy	22
Maryland	8	Japan	3
Massachusetts	28	Malaisia	1
Michigan	9	Malta	1
Minnesota	5	Mexico	17
Missouri	27	Norway	6
Montana	4	Nova Scotia	3
Nebraska	1	Portugal	6
Nevada	3	Russia	9
New Hampshire	2	Scotland	7
New Jersey	2	South America	2
New Mexico	1	Sweden	8
New York	71	Switzerland	5
North Carolina	1	Tahiti	1
Ohio	24	Turkey	1
Oregon	7	West Indies	3
Pennsylvania	35		
Rhode Island	2	Total	905
Tennessee	6		
Texas	8	Native born	601
Utah	2	Foreign born	304
Vermont	2		
Virginia	11	<i>Race.</i>	
Washington	1	Caucasian	704
West Virginia	1	Mongolian	62
Wisconsin	6	Negro	50
Wyoming	1	Indian, American, and Mexican	89
		Total	905

TABLE No. 5.
Clothing Report, from July 1, 1894, to June 30, 1896.

Months.	Citizens.			Issues.										Manufactures.						
	Coats	Vests	Pants	Hats	Socks	Shoes	Gloves	S. P. C. Pants	S. P. F. Shirts	Drawers	Undershirts	Hickory Shirts	Shoes Repaired	Shoes	S. P. C. Pants	S. P. F. Shirts	Drawers	Undershirts	Hickory Shirts	Shoes Repaired
1894—July	12	12	14	51	396	169		113	59	150	150	94	22	204	58	101	150	150	121	22
August	21	21	23	311	642	239		352	279	27	27	83	158	181	316	313			89	158
September	6	6	13	136	400	132		188	250	17	17	42	90	233	179	231			12	90
October	16	16	20	50	340	200		180	200	1,653	1,653	23	110	221	221	149	1,560	1,560	19	110
November	15	15	4	150	450	110		155	151	54	54	30	115	152	270	193	7	5	31	115
December	12	12	13	75	240	73	3	155	151	66	66	6	106	170	178	137	36	94	49	106
1895—January	12	12	24	106	488	182		171	145	98	98	68	108	154	139	182	62	2	54	108
February	9	9	11	136	267	135		157	145	58	58	28	97	125	126	107	70	62	57	97
March	16	16	16	192	429	190	1	157	124	84	84	57	107	125	126	111	24	30	43	107
April	8	8	12	128	322	136	6	179	181	62	62	59	119	158	158	163	12	40	141	119
May	10	10	18	74	250	144	2	148	133	21	21	54	113	186	116	162	450	350	16	113
June	11	11	18	63	217	108		111	62	21	21	54	23	65	26	54	625	650	6	23
Totals	148	148	186	1,472	4,441	1,818	23	2,057	1,802	2,311	2,311	598	1,168	1,967	1,950	1,972	2,996	2,943	638	1,168
1895—July	17	17	21	75	288	183		181	46	22	22	142	189	165	240	48	347	347	89	189
August	17	17	18	60	263	201		208	176	31	31	54	140	174	116	297	256	256	37	140
September	11	11	12	99	337	180		213	201	25	25	47	128	138	113	203	275	275	68	128
October	22	22	22	387	448	170		226	203	1,636	1,636	40	126	225	196	170	100	100	33	126
November	17	17	21	162	182	149	3	158	139	102	102	49	146	128	320	161	197	197	82	146
December	15	15	17	100	248	133	7	246	250	97	97	50	171	128	275	164	67	67	41	171
1896—January	19	19	21	54	380	110	3	248	138	116	116	41	164	171	345	230	51	51	80	164
February	21	21	21	108	312	176	3	273	191	108	108	58	156	181	189	96	61	61	55	156
March	18	18	18	102	308	154	1	174	181	73	73	102	132	207	142	223	134	134	90	132
April	16	16	16	74	338	186		180	161	53	53	38	150	183	200	181			3	150
May	16	16	16	38	363	135		158	143			44	179	208	349	96	150	150	80	179
June	21	24	24	71	264	111	3	130	60	26	26	73	165	103	105	30	356	356		165
Totals	213	213	227	1,330	3,731	1,888	31	2,395	1,889	2,289	2,289	738	1,846	2,011	2,590	1,899	1,994	1,994	638	1,846

TABLE No. 6.

Terms of Imprisonment.

Years.	No.	Years.	No.
One	41	Thirteen	9
One and one quarter	1	Fourteen	16
One and one half	10	Fifteen	35
One and three quarters	1	Seventeen	1
Two	89	Eighteen	3
Two and one half	16	Twenty	42
Two and two thirds	2	Twenty-one	1
Three	101	Twenty-two	3
Three and one half	2	Twenty-four	1
Three and three quarters	1	Twenty-five	12
Four	57	Twenty-eight	1
Four and one half	2	Twenty-nine	1
Five	111	Thirty	8
Five and one third	1	Thirty-two	1
Six	29	Thirty-five	6
Six and one sixth	1	Forty	2
Six and one quarter	1	Forty-two	1
Six and one half	1	Fifty	3
Seven	39	Fifty-five	1
Seven and one half	2	Sixty	1
Eight	42	Life imprisonment	66
Nine	16	Death sentence	3
Ten	101		
Eleven	3	Total	905
Twelve	18		

Educational.

Degree.	No.	System.	No.
Read and write	743	College	6
Read and cannot write	19	Private	81
Neither read nor write	143	Public and private	53
		Self	36
		Public	582
		None	147
Total	905	Total	905

TABLE No. 7.

Occupation of Prisoners when Received.

Occupation.	No.	Occupation.	No.
Acrobat	1	Musician	5
Baker	10	Nailmaker	1
Banker	1	Nurse	2
Barber	22	Painter	34
Bartender	4	Paperhanger	1
Blacksmith	20	Pastry-cook	1
Boatman	0	Peddler	1
Boilermaker	5	Photographer	3
Bookkeeper	8	Plasterer	2
Bootblack	2	Plumber	7
Boxmaker	1	Porter	2
Bricklayer	6	Printer	11
Butcher	9	Rancher	5
Butler	2	Rigger	4
Cabinet-maker	4	Saddler	1
Candy-maker	1	Sailor	30
Chairmaker	1	Salesman	6
Carpenter	19	Servant	3
Clerk	20	Shoemaker	17
Cigarmaker	4	Showman	1
Comedian	1	Stagedriver	1
Cobwinder	1	Steamfitter	1
Cook	55	Stenographer	1
Coppersmith	1	Steward	1
Copyist	1	Stockbroker	1
Dairyman	1	Stonecutter	6
Dishwasher	1	Storekeeper	1
Driller	1	Soldier	1
Druggist	2	Spinner	2
Electrician	6	Tailor	20
Engineer	8	Tanner	3
Farmer	22	Teamster	27
Fireman	7	Telegrapher	4
Florist	2	Tinner	3
Gardener	11	Turner	3
Glassblower	2	Upholsterer	2
Hackman	2	Vaquero	4
Harness-maker	3	Waiter	44
Horse-trainer	2	Weaver	2
Horticulturist	2	Woolsorter	2
Hostler	10	Zincographer	1
Ironmolder	4	No occupation	22
Ironworker	1		
Jeweler	1	Total	905
Jockey	1		
Journalist	1		
Laborer	265	<i>Summary.</i>	
Laundryman	26	Mechanics	34.15%
Lineman	1	Business	20.00%
Lithographer	1	Professions .....	.88%
Lumberman	1	Agriculturists	7.70%
Machinist	13	Laborers	29.20%
Mason	2	None	2.43%
Mill-hand	2	Miscellaneous	5.64%
Miner	15		
Minister	1		100.00%

TABLE No. 8.

Number of Prisoners from Each County.

County.	No.	County.	No.
Alameda	39	Plumas	0
Alpine	0	Riverside	2
Amador	4	Sacramento	79
Butte	9	San Benito	7
Calaveras	3	San Bernardino	10
Colusa	3	San Diego	12
Contra Costa	14	San Francisco	297
Del Norte	0	San Joaquin	27
El Dorado	11	San Luis Obispo	19
Fresno	23	San Mateo	3
Glenn	1	Santa Barbara	3
Humboldt	1	Santa Clara	27
Inyo	6	Santa Cruz	8
Kern	7	Shasta	6
Kings	2	Sierra	2
Lake	1	Siskiyou	4
Lassen	6	Stanislaus	3
Los Angeles	97	Solano	14
Madera	3	Sonoma	22
Marin	1	Sutter	3
Mariposa	4	Tehama	10
Mendocino	6	Trinity	3
Merced	14	Tulare	7
Modoc	1	Tuolumne	2
Mono	0	Ventura	2
Monterey	1	Yolo	11
Napa	8	Yuba	13
Nevada	5	Northern District of California	13
Orange	6	Southern District of California	8
Placer	7		
		Total	905

TABLE No. 9.

Age of Prisoners, June 30, 1896.

Age—Years.	No.	Age—Years,	No.
Sixteen.....	3	Fifty-two.....	5
Seventeen.....	2	Fifty-three.....	5
Eighteen.....	12	Fifty-four.....	7
Nineteen.....	13	Fifty-five.....	5
Twenty.....	18	Fifty-six.....	12
Twenty-one.....	28	Fifty-seven.....	3
Twenty-two.....	38	Fifty-eight.....	6
Twenty-three.....	34	Fifty-nine.....	3
Twenty-four.....	31	Sixty.....	1
Twenty-five.....	32	Sixty-one.....	2
Twenty-six.....	35	Sixty-two.....	1
Twenty-seven.....	34	Sixty-three.....	3
Twenty-eight.....	42	Sixty-four.....	1
Twenty-nine.....	37	Sixty-five.....	2
Thirty.....	32	Sixty-six.....	1
Thirty-one.....	35	Sixty-seven.....	2
Thirty-two.....	20	Sixty-eight.....	1
Thirty-three.....	42	Seventy-two.....	1
Thirty-four.....	34	Seventy-three.....	1
Thirty-five.....	23	Seventy-four.....	1
Thirty-six.....	42	Seventy-five.....	1
Thirty-seven.....	24	Seventy-six.....	1
Thirty-eight.....	26	Eighty-one.....	1
Thirty-nine.....	27	Total.....	905
Forty.....	18		
Forty-one.....	26	<i>Summary.</i>	
Forty-two.....	19	Twenty and under.....	48
Forty-three.....	13	Twenty to thirty.....	342
Forty-four.....	21	Thirty to forty.....	291
Forty-five.....	13	Forty to fifty.....	150
Forty-six.....	17	Fifty to sixty.....	57
Forty-seven.....	15	Sixty to seventy.....	12
Forty-eight.....	10	Seventy and over.....	5
Forty-nine.....	7	Total.....	905
Fifty.....	9		
Fifty-one.....	10		

TABLE No. 10.

Classification of Crime.

Crime.	No.	Crime.	No.
Arson	2	Burglary and assault with deadly weapon	1
Arson, first degree	2	Bigamy	2
Arson, second degree	4	Counterfeiting	2
Arson, second degree, and injuring public jail	1	Crime against nature	8
Arson and grand larceny	1	Embezzlement	15
Arson, attempt, second degree	1	Felony	14
Aiding prisoner to escape	1	Forgery	31
Assault with deadly weapon	24	Forgery and prior	2
Assault with deadly weapon and prior	2	Furnishing liquor to an Indian	10
Assault to murder	27	Grand larceny	95
Assault to murder and prior	3	Grand larceny and prior	11
Assault to rob	12	Grand larceny and injuring public jail	1
Assault to rob and prior	2	Having dies, molds, etc.	7
Assault to rape	14	Importing woman for immoral purposes	1
Attempt to commit burglary	2	Incest	5
Attempt to commit burglary, first degree	4	Injuring public jail	1
Attempt to commit burglary, second degree	2	Manslaughter	23
Attempt to commit grand larceny	2	Murder	6
Attempt to commit grand larceny and prior	1	Murder, first degree	52
Attempt to commit crime against nature	1	Murder, second degree	36
Attempt to pass fictitious check	1	Obtaining money by false pretense	3
Burglary	29	Passing counterfeit coin	5
Burglary, first degree	118	Perjury	4
Burglary, second degree	117	Petit larceny and prior	10
Burglary, first degree, and prior	11	Passing fictitious check	4
Burglary, second degree, and prior	14	Permitting wife to remain in house of prostitution	1
Burglary and assault to murder	4	Rape	15
Burglary and grand larceny	4	Receiving stolen goods	4
Burglary and assault to rob	2	Robbery	115
Burglary and attempt to commit burglary	1	Robbery and prior	7
Burglary, second degree, and injuring public jail	2	Robbing U. S. mail	1
		Seduction	1
		Smuggling	2
		Total	905

TABLE No. 11.

Number of Term, and Religious Belief.

Prisoners Serving—	No.	Belief.	No.
First term	660	Catholic	393
Second term	177	Protestant	341
Third term	44	Jew	11
Fourth term	9	Pagan	61
Fifth term	7	Atheist	2
Sixth term	3	Irreligious	97
Seventh term	3		
Tenth term	1		
Twelfth term	1		
Total	905	Total	905

PHYSICIAN'S REPORT.

MEDICAL DEPARTMENT,
STATE PRISON AT FOLSOM, CALIFORNIA, }
REPRESA, June 30, 1896.

HON. CHARLES AULL, *Warden*:

DEAR SIR: I have the pleasure of submitting to you the biennial report of the Medical Department of the Folsom State Prison. The tabular statements hereunto attached are self-explanatory, but deserve special attention in some particulars.

1894-95.

Some four years ago the State Board of Health recommended our courts to send all their "old chronics," and especially those suffering from pulmonary troubles, to Folsom. Again, the idea has become current during the past two years that a low death-rate prevails at this prison, and prisoners who are in any manner suffering from physical ailments have been making special requests to the courts that they be sent to Folsom. The result of these two causes combined has been to give us a rare collection of worn-out, diseased, and dying men.

If you will glance at the death record you will readily see the effect of this evil. Five out of nine die with consumption—an incurable disease; another dies from epilepsy, and still another from opium poisoning; making seven out of the nine dying from chronic or incurable diseases, while one of the remaining two is killed by accident. The death-rate for this year is 1.13+.

1895-96.

I take pride in calling your attention to the work of this year. With an increase in numbers to nearly 900 men, our percentage of deaths is at the very low rate of $\frac{7.9}{100}$ of one per cent. I doubt if there is another institution in the United States as old as this, and with the same number of men, that can equal this record.

There were 14,913 cases treated in the regular Medical Department, and 772 surgical cases: making a grand total of 15,685 cases, with 7 deaths.

EXECUTIONS.

There were four executions during the year. The post-mortem examinations disclosed, in each case, that the spinal column had been dislocated or broken and the spinal cord separated, showing the greatest care in the manner of execution: thanks to yourself and your efficient help.

OPIUM HABIT.

There has been comparatively little opium in the prison during the year. We have had 29 new cases, all of which I have taken charge of on their arrival and have cured entirely before allowing them to mix with the other prisoners. Out of this number there have been but one or two cases that have begun the practice again, and I think that it will only be a matter of two or three years longer when this evil will be thoroughly and completely eradicated.

GENERAL CONDITIONS.

The general health of the prison has been good and the general sanitary condition would be difficult to improve. The food is fresh and wholesome at all times and there is always an abundance. The prisoners are all compelled to take regular baths and to keep their persons, their clothes, and their bedding and cells in a neat condition. The corridors and cells, wash-rooms and closets, are kept in a scrupulously neat condition. The sewerage system as a whole is good, though there are one or two branches which are sadly in need of repair.

The new dining-room and kitchen are certainly filling a long-felt want, as they give an abundance of room and the ventilation is far better.

The rock-crusher is giving the men an abundance of hard labor, as the work connected with it is more difficult as a whole than any other at the prison. It also furnishes us with a great many more accidents, and is rather hard on clothing.

I find this Department well equipped in the matter of drugs, but sadly deficient in regard to surgical instruments. However, I think this matter will be attended to soon. I should certainly recommend that the institution be thoroughly equipped with a full line of surgical instruments.

In conclusion, allow me to thank you for the prompt aid and attention you have at all times rendered this Department. This, and the sanitary condition of the prison, and your excellent discipline, have certainly been great factors in enabling me to make the good report that I herewith hand you.

Respectfully submitted.

C. L. BROWNING,
Physician.

Rheumatism	17	40	31	31	27	27	53	26	48	39	46	23	408
Scrofula													
Syphilis	10	14	8	5	5	18	17	7	4	7	9	1	105
Spermorrhoea					1				19	2		15	37
Unclassified	56	141	82	97	147	87	98	98	113	629	145	189	1,882
Totals	1,377	1,912	1,410	1,582	1,194	1,252	1,256	1,173	1,214	1,942	1,762	1,589	17,663
<i>Surgical.</i>													
Amputation		1										1	2
Dislocation													
Fracture		12	12			2			1	1	1		29
Hernia	3							1		2		2	8
Sprains	4	13	23	5	1		20		13	7	10	4	100
Teeth extracted													
Wounds, contused	8	18	12	76	16	32	54	43	33	25	21	9	347
Wounds, incised	5	48	17	17	6	4	17	19	10	8		18	169
Unclassified	1								2				3
Totals	21	92	64	98	23	38	91	63	59	43	32	34	658
Excused from daily labor													
Admissions to hospital	153	330	212	208	131	123	198	221	192	634	279	212	2,893
Deaths	3	8	2	1		5	2	6	5	6	4	8	50
	2	2			1		1	2		1	1		9

Deceased.

No.	Name.	Age.	Cause.	Date of Death.	No.	Name.	Age.	Cause.	Date of Death.
2456	C. Carelo	35	Phthisis pulmonalis.	July 10, 1894	3349	Ah Tan	44	Opium poison	Feb. 3, 1895
2491	J. Brooks	70	Apoplexy	July 23, 1894	1593	F. Calzado	45	Phthisis pulmonalis.	Feb. 11, 1895
3229	W. Taylor	50	Epilepsy	Aug. 18, 1894	2786	Limp (Indian)	38	Phthisis pulmonalis.	April 13, 1895
1074	Lee (Indian)	29	Phthisis pulmonalis.	Aug. 28, 1894	2666	M. Soto	41	Accident	May 6, 1895
2117	R. Burke	36	Phthisis pulmonalis.	Jan. 5, 1895					

MEDICAL DEPARTMENT—CALIFORNIA STATE PRISON AT FOLSOM.

Table Showing Number of Cases Treated by Physician during Fiscal Year ending June 30, 1896, including Office Calls and Cases Treated in Hospital; Number of those Released from Daily Labor on account of Illness, and Number of Deaths, Giving Name and Age of Prisoner, and Cause of Death.

Diseases.	Cases—July, 1895.	Cases—Aug., 1895.	Cases—Sept., 1895.	Cases—Oct., 1895.	Cases—Nov., 1895.	Cases—Dec., 1895.	Cases—Jan., 1896.	Cases—Feb., 1896.	Cases—March, 1896.	Cases—April, 1896.	Cases—May, 1896.	Cases—June, 1896.	Total.
Asthma						1	1	3	3	1		1	10
Allopecia		4	7	6	3	4	3	2				4	40
Biliousness	120	137	131	97	88	68	129	107	129	122	95	105	1,328
Bronchitis	27	34	28	16	10	10	12	10	34	11	5	4	201
Catarrh, nasal	30	50	30	21	12	19	20	31	16	41	26	18	314
Catarrh, genito-urinary		8	12	2	1				1				24
Constipation	133	225	121	94	103	83	141	116	165	106	80	90	1,457
Conjunctivitis	32	49	32	36	32	21	31	37	17	24	23	22	356
Colic	43	32	31	53	29	31	45	65	45	50	61	48	533
Cephalalgia													
Coughs	113	157	172	151	120	138	227	196	187	99	136	129	1,825
Diarrhea	90	105	119	149	92	69	117	65	61	47	122	229	1,265
Diet	7	14	15		2							8	46
Dysuria	20											8	28
Eczema	23	51	27	16	9	16	15	20	9	8	11	10	215
Erysipelas		1	1										2
Felons						4							4
Gleet		10	20	19	10	10	5	5	2	2	4	7	94
Gonorrhoea	6	34	30	16	8	8	6	4	6	13	6	7	144
Hemorrhoids		35	43	41	17	27	43	34	51	25	40	35	400
Insomnia		86	133	66	45	29	34	46	21	20	22	16	571
Indigestion		157	114	138	103	84	96	130	106	118	106	104	1,345
Malaria		259	296	126	149	57	68	99	130	77	99	179	1,678
Neuralgia		74	98	87	61	70	82	62	56	48	35	34	750
Otalgia													
Odontalgia													
Onychia		9	15	3	9	11	27	11	15	11	21	15	147
Phthisis		17	22	10	4	3	7	11	2	2	8	13	99
Pyrosis		32	40	50	36	31	62	52	51	39	49	33	481
Pneumonitis													
Rheumatism	35	49	72	50	35	59	64	79	44	26	29	28	570

Scrofula	10	5	32	25	29	22	10	12	11	15	15	15
Syphilis	15	34	19	14	19	27	31	20	27	31	20	262
Spermorrhoea	8	5	15	21	12	66	30	23	32	44	53	221
Unclassified	81	48	15	1,038	913	1,350	1,256	1,206	962	1,082	1,245	458
Totals	1,108	1,739	1,701	1,313	913	1,350	1,256	1,206	962	1,082	1,245	14,913
<i>Surgical.</i>												
Amputation												1
Dislocation			1						1			1
Fracture												5
Foreign bodies removed												28
Hernia			18	5	8	9	3	6	10	13	10	99
Sprains				4	1	3	3		2	3	7	23
Teeth extracted			18	20	11	23	11	9	5	10	13	137
Wounds, contused			12	11	9	10	14	14	13	14	18	139
Wounds, incised			23	12	7	27	13	21	4	25	28	198
Unclassified			9	4	20	9	11	5	4	17	19	127
Totals	26	71	91	58	49	61	81	56	39	84	99	772
Excuses from daily labor			179	167	150	131	218	196	91	156	223	2,077
Admission to hospital			1	3	2	6	6	4	4	5	6	52
Deaths			1		2	1		1	1	1	3	11

Deceased.

No.	Name.	Age.	Cause.	Date of Death.	No.	Name.	Age.	Cause.	Date of Death.
3022	Tom Johnson	19	Syphilis	July	3445	P. Horago	38	Phthisis pulmonalis	April
2924	W. D. Robinson	28	Accident	Aug.	3056	Jno. Hayes	27	Typho-malaria	May
3520	W. Martin	23	Carsenoma, stomach	Nov.	3794	Jno. Craig	42	Executed	June
1643	José Montoyo	45	Intestinal obstruction	Nov.	3263	P. Kamaume	29	Executed	June
3595	Chin Hane	32	Executed	Dec.	1784	Juan Alvarez	51	Dropsical effusion	June
3648	I. Kovalev	29	Executed	Feb.					29, 1896

SECOND BIENNIAL REPORT

OF THE

BOARD OF TRUSTEES

OF THE

PRESTON SCHOOL OF INDUSTRY

(AT IONE).

JULY 1, 1894, TO JUNE 30, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.
1896.

REPORT.

PRESTON SCHOOL OF INDUSTRY,
WATERMAN, CAL., October 22, 1896. }

To his Excellency JAMES H. BUDD, Governor of California:

SIR: The last biennial report of this Board closed with the fiscal year ending June 30, 1894, at which date the Administration building was finished, furnished, and occupied; and on July 1, 1894, the School was formally thrown open, by proclamation of the Governor, for the reception of inmates. A corps of officers and employés was in attendance at that date, and seven boys, who had been transferred from the State Prison at San Quentin, were in custody and under the discipline of the school.

At that date, also, a temporary structure for housing the electrical plant and other machinery had been completed; and the Trades School building was under construction.

Since the said date the Trades School building has been completed and the various trades departments thereof equipped and placed in operation. The water-power system has been so far completed as to furnish an ample supply of water for propelling two 48-in. and one 36-in. Pelton water-wheels, which furnish power for running the dynamos, the laundry, and the printing machinery in the Trades School building.

The buildings and premises are now thoroughly illuminated, both by incandescent and arc lights.

The U. S. Government has established and maintains a post office in the Administration building; the post office address of the School being "Waterman, Amador County, California."

We have connections with the Sunset and Capital telephone lines, and a local service about the premises. This we consider a necessary adjunct to a reformatory which is conducted on the "open plan."

As the water-supply from Sutter Creek was found to be unwholesome, and unfit for domestic use, we have utilized a spring located on the premises, by conducting the water through an iron pipe to a point near the Administration building, from whence it is temporarily pumped, by hand, to the kitchen and other departments.

The farm lands were unimproved at the time of our first occupancy. We have made many improvements since, in the clearing out of the wood and brush thereon, in fencing tracts, and in leveling the valley

portions, which now constitute the best tracts on the premises; although at the time when we commenced these operations this valley land was little more than abandoned placers, with their heaps of earth and rock, which were anything but promising tracts for tillage. We have planted an orchard of about twenty acres, containing varieties of the fruits that are best adapted to the existing climatic conditions and soil, and have a young vineyard, consisting of about fifteen acres of table grapes. The hill lands have been utilized for pasturage and hay growth, and the limited tracts of valley land for gardening and general tillage.

Unfortunately our tillable area of land is far too limited in extent to enable us to realize the most practicable and profitable results, although, during the present season, we have produced the larger quantities of vegetables, other garden supplies, and small fruits, consumed by our inmates. With suitable land we could be able to raise all the hay and other farm products which we need for supplying our several departments, and would also be able to raise cattle for slaughter.

To secure these results will accomplish a double purpose—save the State a large sum of money that is now expended for these supplies in the market, and at the same time furnish profitable and healthful employment for our rapidly increasing colony of boys. We respectfully request that you present this matter to the Legislature for its consideration.

Our milch cows are mostly of thoroughbred stock, and are yielding a good supply of milk per cow. By natural increase, we will, in a few years, have a fine herd of stock.

The swine are principally of the Berkshire and Poland-China breeds, and are now yielding a good supply of pork and lard.

The time of the formal opening of the School, on July 1, 1894, was the beginning of the fiscal year. Previous to that date we had purchased a full stock of supplies for the furnishing and maintenance of the Institution. The payment for these supplies was made, necessarily, from the appropriation for the preceding year. With these accumulated supplies to draw from, we have been able, even in our overcrowded condition, to subsist on the amounts appropriated by the Legislature for maintenance, without, as yet, overdrawing our monthly allowance. The number of the inmates, being in excess of our estimate, has necessarily compelled the management to use all reasonable economy in order to keep the expenses within the appropriations. Our operations have been necessarily restricted, and the management greatly embarrassed, because of the fact that we received from the last Legislature no appropriation for construction and improvements. Our farm and grounds need fencing; hay barns, sheds for stock, tool-houses, piggeries, and hen-houses are seriously needed at the present time, as our accommodations in these lines are entirely inadequate to our present requirements;

a hospital and additional dormitories must be provided if we are to protect the health of the inmates of the School.

Having received no appropriation for improvements, we have been compelled to use the most rigid economy with the balance remaining over from the preceding appropriations, that we might have funds for the construction of such improvements as were absolutely necessary to prevent the waste and destruction of machinery and supplies.

We beg, also, respectfully to call your attention to the fact that our needs in the way of appropriation on these lines for the next two years will necessarily be much greater than they would be if we had been allowed a reasonable sum for expenditure up to the present time, as we have to *build for the past as well as for the future* out of our next appropriation.

In arranging our schedule of estimated appropriations needed, we have endeavored to be as conservative as is consistent with the well-being of the inmates and the most economical administration of the several departments.

We therefore present the following schedule, as embracing such appropriations as we shall need for acquiring tillable land, the construction of buildings, the advancing of necessary improvements, and the cost of maintenance of the estimated average number of inmates for the next two years:

FOR PERMANENT IMPROVEMENTS.

Dining-room, Assembly-room, etc.....	\$23,000 00
Furnishing dining-room, Assembly-room, etc.....	1,000 00
Double cottages (2), at \$15,000.....	30,000 00
Furnishing two double cottages.....	3,500 00
Hospital.....	8,000 00
Furnishing hospital.....	500 00
Superintendent's cottage.....	8,000 00
Furnishing Superintendent's cottage.....	1,500 00
Ice and refrigerating plant.....	2,500 00
Printing outfit.....	1,500 00
Equipment of blacksmith-shop.....	800 00
Equipment of carpenter-shop.....	500 00
For library.....	500 00
Piggery and abattoir.....	1,000 00
Enlarging cow-barn.....	2,000 00
For fences.....	1,500 00
Forcing-house.....	600 00
Walks, water-pipes, etc.....	1,000 00
Hay and grain barn.....	1,500 00
Purchase of land.....	5,000 00
Cream separator equipment.....	500 00
Twenty cows, at \$25.....	500 00
Total.....	<u>\$94,900 00</u>

FOR MAINTENANCE DURING THE FORTY-EIGHTH AND FORTY-NINTH FISCAL YEARS.

350 inmates (estimate average number), at \$228 each per year....	\$79,800 00
For two years.....	159,600 00

For further details relative to our financial transactions, the general management of the Institution, progress of the work, etc., we beg to refer you to the accompanying reports, to wit:

Report of E. Carl Bank, Esq., Superintendent.

Report of H. R. Bernard, Esq., Secretary.

Report of A. L. Adams, M.D., Physician.

In conclusion, we have reason to congratulate ourselves and the State on the excellent work of our Superintendent in his successful handling of the inmates of this institution; also, the very efficient manner in which our worthy Secretary has conducted affairs in his department, and the Military Instructor upon the establishment of a high state of military discipline; and, finally, the subordinate officers have shown a marked ability in the discharge of their duties, in the various departments under their charge, and we believe the Institution will compare favorably with all others of its kind.

Respectfully submitted.

(Signed:) E. M. PRESTON,
President Board of Trustees.

Attest: H. R. BERNARD,
Secretary Board of Trustees.

REPORT OF SUPERINTENDENT.

To the Honorable Board of Trustees of the Preston School of Industry:

GENTLEMEN: I have the honor to herewith present my report for the second biennial period of this School.

The following tables will present statistics concerning our work, which will, undoubtedly, be of interest to you, and aid you in tracing the movements of our population, and also the causes, both direct and remote, of the same.

TABLE I.

Showing Number Admitted and Released.

Nativity.	Number Committ'd since Opening.	Number in School, June 30, 1894.	1894-95.		1895-96.		Number in School, June 30, 1896.
			Admitted.	Released.	Admitted.	Released.	
White boys -----	225	7	162	17	56	15	193
Colored boys -----	7	0	3	0	4	0	7
Indians -----	2	0	2	0	0	0	2
Totals -----	234	7	167	17	60	15	202

Whole number admitted	234
Whole number released	32
Whole number in Institution	<u>202</u>

TABLE II.

Number Received, by Months and Years.

	Total	Totals for Years.
June	1	167
May.....	3	60
April.....	7	7
March		
February		
January		
December		
November		
October		
September		
August		
July		
Years.		
1894-95	1	167
1895-96	0	60
Previous		7
Total		234

TABLE III.

Counties from which Boys have been Received.

Counties.	Previous Years.	1894-95.	1895-96.	Total.	Per Cent.
Alameda	1	24	9	34	14.6
Amador	0	3	2	5	2.1
Butte	0	2	2	4	1.7
Colusa	0	4	1	5	2.1
Fresno	2	0	0	2	0.9
Glenn	0	0	1	1	0.4
Humboldt	0	0	2	2	0.9
Kern	0	6	0	6	2.5
Los Angeles	1	10	3	14	6.3
Merced	0	0	4	4	1.7
Monterey	0	1	2	3	1.3
Nevada	0	1	0	1	0.4
Orange	0	0	4	4	1.7
Placer	0	1	0	1	0.4
Sacramento	0	2	1	3	1.3
San Diego	0	3	0	3	1.3
San Francisco	1	88	14	103	43.8
San Joaquin	0	3	0	3	1.3
San Luis Obispo	0	0	2	2	0.9
Santa Cruz	0	3	2	5	2.1
Siskiyou	0	5	0	5	2.1
Solano	0	2	2	4	1.7
Sonoma	1	4	5	10	4.2
Stanislaus	0	1	0	1	0.4
Tulare	1	0	6	7	0.3
Tuolumne	0	2	0	2	0.9
Totals	7	167	60	234	100.0

TABLE IV.

Causes of Commitment.

Offense.	1894-95.	1895-96.	Previous.	Total.	Per Cent.
Burglary	28	22	2	52	22.3
Grand larceny	12	6	4	22	9.4
Larceny	48	9	0	57	24.4
Vagrancy	60	13	0	73	30.9
Forgery	1	1	0	2	0.9
Misdemeanor	2	0	0	2	0.9
Attempt to rape	1	1	0	2	0.9
Indecent exposure	1	0	0	1	0.4
Disturbing the peace	1	0	0	1	0.4
Felony	2	0	0	2	0.9
Malicious mischief	5	0	0	5	2.1
Assault	1	2	0	3	1.3
Battery	1	1	0	2	0.9
Indecent assault	2	0	0	2	0.9
Vulgar language	1	0	0	1	0.4
Obtaining money under false pretense	1	0	0	1	0.4
Incorrigibility	0	2	0	2	0.9
Infamous crime	0	1	0	1	0.4
Embezzlement	0	2	0	2	0.9
Robbery	0	0	1	1	0.4
Totals	167	60	7	234	100.0

TABLE V.

Courts by Which Commitments Were Made.

	1894-95.	1895-96.	Previous Years.	Total.	Per Cent.
Superior Court.....	43	60	7	110	47.7
Police Court.....	96	0	0	96	40.8
Justice Court.....	26	0	0	26	11.1
Recorder's Court.....	1	0	0	1	0.4
Returned from parole.....	0	1	0	1	
Totals.....				234	100.0

TABLE VI.

Age of Boys When Committed.

	1894-95.	1895-96.	Previous Years.	Total.	Per Cent.
Eight years.....	1	0	0	1	0.5
Nine years.....	0	0	0	0	0.0
Ten years.....	2	0	0	2	0.1
Eleven years.....	11	4	0	15	6.5
Twelve years.....	5	4	0	9	4.0
Thirteen years.....	14	6	0	20	8.6
Fourteen years.....	22	12	0	34	14.5
Fifteen years.....	35	7	0	42	18.0
Sixteen years.....	33	12	2	47	20.0
Seventeen years.....	44	15	5	64	27.8
Totals.....	167	60	7	234	100.0

Average, 15 + years.

TABLE VII.

Nativity of Boys.

	1894-95.	1895-96.	Previous Years.	Total.	Per Cent.
<i>United States.</i>					
Arizona	1	0	0	1	0.5
California	108	36	5	149	70.1
Colorado	0	1	0	1	0.5
North Dakota	3	0	0	3	1.4
Florida	1	0	0	1	0.5
Illinois	2	3	0	5	2.3
Indian Territory	1	0	0	1	0.5
Indiana	1	1	0	2	0.8
Iowa	3	0	0	3	1.4
Kansas	3	1	0	4	1.7
Louisiana	0	1	0	1	0.5
Maryland	1	0	0	1	0.8
Massachusetts	1	1	0	2	0.8
Michigan	1	1	0	2	3.3
Missouri	3	3	1	7	0.5
New Jersey	1	0	0	1	2.3
New York	5	0	0	5	4.7
Nevada	8	2	0	10	0.5
North Carolina	0	1	0	1	1.4
Ohio	3	0	0	3	1.4
Oregon	3	0	0	3	0.8
Pennsylvania	0	2	0	2	0.8
Texas	2	0	0	2	0.5
Utah	1	0	0	1	0.5
Washington	0	1	0	1	0.5
	152	54	6	212	100.0
<i>Foreign Countries.</i>					
Australia	1	0	0	1	4.6
Austria	1	0	0	1	4.6
Canada	3	1	0	4	18.2
England	1	1	1	3	13.6
Germany	0	1	0	1	4.6
Ireland	1	1	0	2	9.1
Italy	3	0	0	3	13.6
Mexico	0	1	0	1	4.6
Newfoundland	1	0	0	1	4.6
Scotland	1	0	0	1	4.6
Switzerland	0	1	0	1	4.6
Unknown	3	0	0	3	13.6
	15	6	1	22	100.0

Summary.

	Number.	Per Cent.
United States	212	90.6
Foreign countries	19	8.1
Unknown	3	1.3
Total	234	100.0

TABLE VIII.

Nativity of Boys' Fathers.

	1894-95.	1895-96.	Previous Years.	Total.	Per Cent.
America	61	19	4	84	36.1
Austria	1	0	0	1	0.5
Belgium	1	0	0	1	0.5
Denmark	0	1	0	1	0.5
England	6	5	0	11	4.7
France	2	1	0	3	1.3
Germany	17	10	0	27	11.6
Ireland	27	11	1	39	16.3
Italy	9	0	0	9	3.9
Mexico	0	2	0	2	0.8
Nova Scotia	2	0	0	2	0.8
Portugal	2	1	0	3	1.3
Scotland	1	1	0	2	0.8
Spain	1	0	0	1	0.5
Sweden	1	0	0	1	0.4
Switzerland	0	2	0	2	0.8
Wales	1	0	0	1	0.4
Negro	2	4	0	6	2.5
Unknown	33	3	2	38	16.3
Totals	167	60	7	234	100.0

TABLE IX.

Nativity of Boys' Mothers.

	1894-95.	1895-96.	Previous Years.	Totals.	Per Cent.
America	60	28	4	92	39.3
Australia	1	0	0	1	0.4
Austria	1	0	0	1	0.4
Belgium	0	0	0	0	0.0
Canada	1	4	0	5	2.2
England	5	6	0	11	4.7
France	2	0	0	2	0.9
Germany	8	2	0	10	4.3
Ireland	31	10	1	42	18.0
Italy	9	0	0	9	3.9
Mexico	1	0	1	2	0.9
Negro	2	2	0	4	1.7
Portugal	2	0	0	2	0.9
Scotland	3	0	0	3	1.2
Spain	1	1	0	2	0.9
Switzerland	0	1	0	1	0.4
Unknown	41	4	2	47	20.0
Totals	167	60	7	234	100.0

TABLE X.

Religious Beliefs.

Religion.	Boys.	Per Cent.	Religion.	Boys.	Per Cent.
Adventist	1	0.43	Methodist	25	10.70
Baptist	8	3.40	Presbyterian	19	8.15
Catholic	122	52.00	United Brethern	1	0.43
Christian	9	3.80	Unitarian	1	0.43
Congregational	4	1.70	No religion	31	13.40
Episcopal	6	2.60			
German Lutheran	2	0.85			
Jewish	5	2.14	Totals	234	100.00

TABLE XI.

Habits of Parents.

Fathers temperate.....	149	63.5%	Mothers temperate.....	210	89.7%
Fathers intemperate..	85	36.5	Mothers intemperate..	24	10.3
Totals	234	100.0%	Totals	234	100.0%

TABLE XII.

Home Relations of Inmates.

Lost father only	56	24.0%
Lost mother only.....	29	12.3
Lost both	29	12.3
*Parents both living.....	119	51.0
Unknown	1	0.4
Totals	234	100.0%

*Of these parents, there are but 82 couples living together; 37 being separated.

NOTE.—From the foregoing table we find that 65% of the boys come from homes which have been broken, either by death or separation.

TABLE XIII.

Disposition of Boys Released.

	1894-95.	1895-96.	Total.
Number discharged.....	3	7	10
Number granted parole.....	1	4	5
Number escaped.....	6	1	7
Number returned to State's Prison.....	1	0	1
Number returned to court (improper subjects).....	2	0	2
Number granted new trial.....	1	0	1
Number returned to court (improper commitment).....	0	2	2
Number released on new warrant.....	1	1	2
Number died.....	2	0	2
Totals	17	15	32

TABLE XIV.

Number Boys Released, by Months and Years.

Years.	July	August	September	October	November	December	January	February	March	April	May	June	Total
1894-95	0	1	0	0	0	1	0	3	1	3	6	0	15
1895-96	2	0	2	0	1	2	1	3	1	0	2	1	15
Died	0	0	0	0	0	0	0	1*	0	0	0	1*	2
Totals	2	1	2	0	1	3	1	7	2	3	8	2	32

* In 1895.

TABLE XV.

Average Number Months Boys Remained in Institution.

Fiscal Year 1894-95.	Average Number Months.	Fiscal Year 1895-96.	Average Number Months.
Boys released on parole.....	4 $\frac{1}{2}$	Boys released on parole.....	13 $\frac{7}{10}$
Boys discharged.....	9 $\frac{1}{2}$	Boys discharged.....	11 $\frac{1}{2}$
Boys escaped.....	3 $\frac{3}{4}$	Boys escaped.....	21
Boys returned (imp. subjects)....	2	Boys improperly committed.....	1

TABLE XVI.

Number of Boys Employed in Different Departments at Close of Fiscal Year.

Department.	1894-95.	1895-96.	Department.	1894-95.	1895-96.
Tailoring.....	16	19	Horticultural.....	24	24
Shoemaking.....	7	10	Dining-rooms.....	27	27
Carpentering.....	6	4	Hospital.....	2	2
Printing.....	0	2	Office.....	2	2
Engineering.....	10	8	Housework.....	11	38
Laundry.....	15	15	Miscellaneous.....	4	6
Baker.....	4	5	Commissary.....	0	2
Cookery.....	10	16			
Agricultural.....	17	22	Totals.....	155	202

TABLE XVII.

Education of Boys.

	1894-95.	1895-96.	Previous Years.	Total.	Per Cent.
Illiterate.....	1	3	1	5	2.14
Read only.....	10	1	0	11	4.70
Read and write.....	140	54	5	199	85.04
Superior.....	16	2	1	19	8.12
Totals.....	167	60	7	234	100.00

TABLE XVIII.

Educational Standing of Boys When Committed.

	No. Boys.	Per Cent.
Lowest grade primary.....	13	5.6
First reader.....	19	8.2
Second reader.....	86	36.6
Third reader.....	103	44.0
Advanced.....	13	5.6
Totals.....	234	100.0

The two years just passed, being the construction period of our existence, have been eventful ones. Our predictions in regard to the probability of having a rapidly increasing population were more than fulfilled, as will be seen by referring to Table II.

During the eight months ending with March 31, 1895, the average

number of admissions per month was a fraction over 20, and this rate would undoubtedly have continued had it not been necessary to notify the authorities throughout the State to refrain from committing any more boys here. By rearranging our rooms and utilizing the Superintendent's dining-room and kitchen for officers' use and devoting the officers' dining-room to a company of small boys, we were again able to find accommodations for more pupils. By this time the law passed in 1895 (which put one half the burden of expense upon the counties) came into effect, and the courts became very careful in making commitments; and since that time the average number of admissions per month has been reduced.

At the present time we are caring for over 200 boys, which is at least 75 more than we can satisfactorily accommodate. This will be the maximum number which we can care for until more buildings are provided.

Our experience in getting the work of the school well under way was not unlike that of other institutions. Disaffection among the officers, attacks on the management from within and without, ending, as it all did, in an investigation by the Legislature, is a common experience for a new public institution.

I beg to submit extracts from the reports of this legislative committee:

SUB-COMMITTEE ON RETRENCHMENT AND PUBLIC EXPENDITURES,
SACRAMENTO, February 11, 1895. }

In behalf of the joint committee appointed from the Senate and Assembly to inspect the management and the financial affairs of the Preston School of Industry at Ione, I beg to report as follows:

The members of your committee visited Ione as directed, and spent two days in inspecting the buildings, the ditches, reservoirs, and water-system, the contracts, and the management of the school.

We made diligent inquiry into the extent, capacity, and efficiency of the water-system, and find that the ditches, the water-pipe, and the reservoir are all substantially constructed and of sufficient capacity to furnish all the power required for lighting and mechanical purposes, and all the water required for domestic use and for irrigation, so far as your committee could ascertain.

The buildings are well constructed, of fine architectural appearance, and are well adapted to the purposes for which they were designed.

The furniture, while not of the cheapest material, is plain and substantial, and has evidently been selected for its durability and utility.

The premises throughout present a neat and tidy appearance, and give evidence of a systematic and careful oversight on the part of the Superintendent and his subordinate officers.

The school is conducted on what is known as the "open" plan, without bars to the windows, or walls or fences, other than the ordinary farm fence for inclosure; and yet the system of discipline and management is such that, although the boys have the freedom of the grounds, yet the attempts at escape are comparatively few.

We visited the boys in their Assembly-room, and found them dressed neatly in gray uniforms, cheerful, and seemingly contented and appreciative of the attention shown them.

We found the Mechanical Trades School to be worthy of special mention, containing a model laundry and departments for the several mechanical trades to be taught.

The Administration building, however, while well equipped and well designed, has not sufficient capacity for the proper care and disposition of the inmates.

The dormitories are already nearly filled.

The hospital, including the ward for contagious diseases, is in the main building.

For lack of other facilities, the large bathroom in the basement is now necessarily used as the Commissary's storeroom.

The kitchen, bakery, and dining-rooms are not of sufficient capacity for the future accommodation of the inmates.

We therefore recommend the appropriations set for in Senate bills Nos. 193 and 194, as amended, which appropriate moneys for the construction of the additional buildings, as set forth in the foregoing statement.

We also recommend the introduction of a bill appropriating the sum of \$2,500 for the purchase of an additional tract of 70 acres of land, known as the Randall Ranch tract, being a triangular piece of land lying contiguous to the buildings and premises of the School, and between said premises and the county road leading from Ione to Sacramento.

In regard to the compensation and number of the subordinate officers and employes, we find that the rates of compensation compare favorably with those of any other State institution; that there are no supernumeraries, and that if any criticism is to be made, it is for overwork rather than idleness or lack of employment.

We investigated the manner of letting contracts and of purchasing supplies, and find that all contracts were duly advertised and awarded to the lowest bidder, in accordance with law, and that any past inference of extravagance or misappropriation of funds was unwarranted and without foundation in fact.

SUB-COMMITTEE ON RETRENCHMENT AND PUBLIC EXPENDITURES, }
ASSEMBLY CHAMBER, SACRAMENTO, February 18, 1895. }

MR. SPEAKER: The undersigned, a sub-committee of your Committee on Retrenchment and Public Expenditures, acting under the authorization of Concurrent Resolution No. 6, beg leave to submit the following report:

We visited the Preston School of Industry at Ione on the 26th day of January.

The school is situated on a prominence one half mile north of the town of Ione. The Administration building is an attractive structure, which at once arrests the attention of the visitor to the town.

The location is doubtless a healthful one, and the view from the Administration building, stretching east, south, and west, over the beautiful town of Ione, and the surrounding country for a long distance, and to the north many miles, presents a panoramic view seldom equaled in beauty and variety of scenery in any part of the State. * * *

The buildings erected under the present Board of Trustees are plain, durable structures, cheaply but substantially built, and admirably adapted to the uses for which they are designed, being so arranged that one guard or foreman can overlook the inmates at work in two rooms.

The live stock is good, and was purchased at fair prices.

We paid particular attention to the water-supply, for which \$60,550 was paid, and went along the line of the ditch some four or five miles to the reservoirs. The contractors along the line selling the water-grant and the title thereto, which, it is alleged, is the first right to the waters of Sutter Creek to its source above the town of Volcano, also constructed the ditch, some eleven or twelve miles long, built the dam for the reservoir, covering forty acres of land, to a depth of fifty feet in the deepest place, and laid 6,000 feet of pipe, delivering water at the power-house under a pressure of about 300 feet.

We could not estimate the cost of the ditch, but think the dam for the reservoir must have cost about \$20,000, and the 6,000 feet of pipe about \$12,000.

The value of this water-supply, as a matter of course, depends upon its sufficiency in the dry season. Mr. Fayette Mace, one of the Trustees, and an old resident of the vicinity, assured us the supply would be ample. If the water-supply proves ample to fill the pipes it will give sufficient and cheap power.

There is but little land on the three hundred and twenty acres owned by the State suitable for gardening, but there is an adjoining tract of some ninety acres, about sixty of which is apparently fair garden land, on which the sewage could be taken, thus utilizing it and preventing complaints in the future in regard to it. It was thought this tract of land could be bought for \$2,500; and, if so, we recommend its purchase.

The inmates of the school, numbering at the time 120, were well cared for, well clothed, and seem to be under excellent discipline, and to be entirely contented. Though unconfined, few attempts at escape had been made.

The regulations require four hours in school, four hours at labor of some kind, and four hours for recreation and military drill.

Their evenings are spent in reading and innocent games, with singing exercises two or three times a week.

We are not surprised that the inmates of the school are contented, as few parents are able to give their boys the advantages of school, the opportunities to learn a useful trade, and the easy and enjoyable time the boys in this school have.

Boys were being committed to the school at the rate of 20 per month when we were there, but we understand there are now 147 in the institution—an increase of 27 in 20 days. As an evidence that the people in the State have learned of the excellent educational and moral training the boys are receiving, the Superintendent has received letters from parents asking how they could get their boys into the school.

It will require an expenditure of from \$60,000 to \$75,000 to put up the necessary buildings to accommodate 300 boys, the institution being now practically full, and even crowded.

At the rate they are now coming in there will be 357 boys there by the first of January, 1896, and 597 boys by the first of January, 1897.

For each 100 boys above 300, an expenditure of \$30,000, for a double cottage, will be required. It will be seen that four of these cottages will be required by January 1, 1897. After that date, the discharges will, probably, to a considerable extent, offset the admissions.

We found nothing to criticise in the management of the present Trustees. The Superintendent, Mr. E. Carl Bank, though a young man, has had ten years' experience in the excellent schools at Lansing, Mich., and at Philadelphia, seems to understand the best methods for reforming the boys committed to his charge, and is thoroughly painstaking in his work.

This investigation ending, as it did, in a complete vindication of our methods and management, has had the effect of giving us such a standing with the Legislature and the public that we have seemed to have their confidence from that time until the present.

That committee not only saw that our requests for appropriations were reasonable, but (with the one exception of request to build a dam at our settling reservoir site) *recommended every item*, both for maintenance and improvements, besides urging the appropriation to purchase more land—a scheme which we have cherished, but had not felt that we could carry out at that time.

Our work with the boys has been very encouraging, and those to whom paroles have been granted have done well, without exception.

We have taken advantage of the law which permits us to return improper subjects to the committing courts in two cases (and have returned one to San Quentin), and the effect of such discipline has been very wholesome.

It gives me pleasure to say that the relations existing between the officers and the boys at the present time are very pleasant. The officers and employes have, almost without exception, taken a lively interest in all the affairs which tend to make life more pleasant and profitable for the boys, and in return the boys have shown a very commendable appreciation of all that has been done.

The outdoor athletics have tended much to promote the good feeling and general content during the summer, while reading, indoor games, and entertainments have kept time from hanging heavy upon us during the long winter evenings.

Our facilities for properly entertaining the boys in the winter have been very inadequate, both in the amount of room at our disposal and in the limited amount of reading matter.

Our library is composed entirely of books donated to the school by some of our friends, and I would suggest that we ask for enough money to start a library. After once getting started we could keep adding to the stock by purchases made from our current expense fund.

To be able to get the boys interested in good reading is a great help in our work, and for this reason a good library is very necessary. It is also essential to have more room to be used as reading or sitting rooms, so that each company can have a room by itself.

The boys have participated in many games and entertainments with the outside people, and have, with scarcely an exception, conducted themselves very commendably.

Another source, both of pleasure and profit, has been the private gardens which the boys have been allowed to have. These gardens have been very helpful in getting the boys interested in their Institution home, for they have furnished work for both hand and head, and have given to the boy a sure remuneration (for his labor) by his having full control of all the produce which he could raise.

HEALTH.

Concerning the health of the School I refer you to the report of the attending physician, whose suggestions and remarks are worthy your careful consideration.

I believe that the physician, as well as the nurse, is to be congratulated upon the success which has crowned his efforts in caring for the sick.

But one boy's death is really to be accounted to the school, for the other one was very sick when he was admitted, and lived only a few weeks.

SCHOOL DEPARTMENT.

Our schools have been in session regularly each week of the year. As now arranged we have four school divisions, two being in session from 7:15 to 11 o'clock A. M., six days each week, while two are in session from 12:30 until 4:30 P. M., five days each week. Our schools have progressed very satisfactorily under the management of teachers who have acquired efficiency by practical work in the school-room before coming to us.

We are very much retarded in our school work by not having enough

rooms. As it is now, we have to use the same room for two school divisions, which creates much confusion and loss of valuable time. We are using for one school-room a part of our Trades building, which was designed as a shop for tinning and plumbing, and which is but poorly adapted to its present use.

MILITARY DEPARTMENT.

Our military work has been kept up throughout the year, by daily exercises and drills, under the supervision of a competent instructor.

The setting-up exercises are held each morning between 6 and 6:20 o'clock, while the company and battalion drills are held from 4:45 to 5:15, five afternoons each week. Inspection of companies and their apartments is held each Sunday at 10:30 o'clock A. M.

The exercises and drills are having a good effect upon our boys, especially in the way of securing a courteous manner and a soldierly bearing.

TRADES.

Fair progress has been made along this line, but much remains undone, for lack of means to prosecute the work.

Our Tailoring department is furnishing employment for eighteen boys, who are not only learning a good trade, but are making all the clothing used by the boys.

Our Shoemaking and Harness department is now using eleven boys, but will soon be furnishing work for fifteen. For the past year and a half we have done all of our own repairing and made part of the shoes, and will soon be able to make all that we use. We have done nothing in the way of harness-making, except doing some repair work.

Our Carpentry department is working six boys, who are doing very nicely, and have saved to the State many hundreds of dollars in being able to do all the carpenter work done around the Institution. We are very much in need of some machinery for use in this department.

Our Printing department is hardly worthy of the name, on account of lack of funds to put in proper equipment, but we have been able to do quite an amount of the printing needed about the Institution. We now have nothing but a 7-in. by 11-in. "Jobber," and must needs have a good press and more type before we can claim anything for this department.

Our Laundry department is well equipped and working very satisfactorily. Sixteen boys are employed and are doing all the laundry work for the Institution.

Our Engineering department furnishes employment for nine boys, who are learning to do the various duties connected with their work.

Some of these boys have become skillful in handling the dynamos, and one boy has had sole charge of the lighting department every night

for the last five or six months, thus saving to the State the salary of one man, besides learning a good business for himself. Some of the boys have become quite proficient in steam-fitting and plumbing, some have become quite skillful at the forge, while others have learned to properly care for steam-boilers and the steam-heating equipment.

GENERAL WORK.

In our Bake-shop, Kitchens, Dining-rooms, etc., we are not only teaching the boys to be bakers, cooks, and waiters, but are also teaching them habits of industry and cleanliness, which cannot help being of much service to them in after life.

In all the departments we strive to make the work instructive as well as productive, and aim to hold boys at the work which can be of no particular value to them in after life only so long as circumstances seem to justify.

AGRICULTURAL DEPARTMENT.

In this department the opportunities for making a good showing on paper have been hampered by the unimproved condition of our farm. We were fortunate in selecting horses and equipments which have served our purpose admirably. The first year we raised nearly enough hay to supply all our needs, besides raising some oats for our horses. The work done in making permanent improvements on our farm has been extensive, and is rapidly showing its effects in the productiveness and ease with which the work is carried on. During the past year a great amount of leveling has been done in the gulches where the ground had been thrown up in early days by the miners, and this has increased the amount of tillable land and given us the use of the most fertile part of the farm. This year we have prepared about five acres of this ground, and it has already paid for the labor in the two crops of potatoes which we have raised upon it. There is still much work to be done in leveling, clearing off the brush, draining, digging irrigating ditches, fencing, etc.

THE DAIRY.

This is one of the attractive and interesting, as well as productive, features of the Agricultural department.

The purchase of the thoroughbred Holstein-Friesian cows and bull has proved a wise investment. We have bought in all six full-blooded cows and one bull. We have already sold one bull calf for \$50, when about ten months old, and one heifer has been producing milk for five months and has already proven that she is a great milk-producer. Our herd of twenty cows produced 14,488 gallons of milk during the twelve months ending April 30, 1896. We keep a record in pounds of the amount of milk each cow gives each day, and by these means determine whether a cow is a profitable one to keep or not. Our records already

show that the dairy is one of the most profitable departments. If we could have more land, so that we could keep more cows, and make at least a part of our butter, we could then start a dairy school, which would not only prove an investment which would bring immediate returns, but it would be one of the best industries which could be taught many of our boys.

HORTICULTURE.

The Horticultural department has also made rapid strides. The orchard of twenty acres, which was put out two years ago, is, for the most part, very thrifty and bids fair to produce an abundance of fruit in due time. We have a vineyard which is set to the various varieties of table grapes, as well as to a few for raisins. Much labor has also been performed in this department in getting the ground ready for cultivation, while at the same time the tables have been quite well supplied with green vegetables.

The Landscape Gardening, which is an adjunct to the Horticultural department, has not progressed very rapidly, as most of the labor has been directed in the way of getting results which were of some immediate value to the School. We cannot produce the vegetables and various farm products and at the same time push the work of making walks, drives, and lawns, but can put in only our spare time in these directions.

THE LAW.

The law under which commitments are now made is not, in my opinion, for the best interest of the Institution or the State. As it now stands, the counties not only pay one half the expenses of each boy sent here, but they also pay their just proportion of the tax which supports the Institution. This extra burden upon the counties has had the effect of turning many boys loose to run the streets who were very much in need of restraint. In one case which came under my particular notice, the boy was released, after being pronounced a proper subject, but he subsequently committed an act which caused the loss of thousands of dollars' worth of property. It is true that the old law was open to abuse, but I am sure that laws can be framed which would protect, not only the boy, but also the Institution, and better subserve the State, than the present law.

I wish to recommend for your consideration changes in the law which will prevent the Institution from becoming an asylum for the weak or a hospital for chronic cases of disease.

The change which I suggested two years ago in regard to the desirability of making all commitments extend until the boy arrives at 21 years of age was not made. I cannot perhaps explain my reasons for desiring the change any clearer than to quote from my last report:

"As it now stands, a boy might be committed for any number of days,

months, or years, so long as it did not extend beyond his twenty-first birthday (Section 15). The welfare of the Institution and of its boys could be best promoted by having every child committed during his minority, thus giving us an opportunity to retain a control over him until he shall be old enough to have some discretion.

"The subject of a boy's reformation should, of course, be paramount to all others, but we should not lose sight of the fact that without the means and the inclination to labor, a good boy soon becomes a bad boy. It is therefore incumbent upon us to keep a boy in the School long enough to prepare him to go out into the world with such a knowledge of some vocation as will enable him to care for himself. If we cannot give him a trade, he should have, at least, a desire and love for toil, and an abiding faith in the efficacy of labor as a means of happiness and success.

"The time required to bring about this condition varies with the individual, and, in fact, with some it is but a condition which 'never is but always to be' attained. With boys of fair intelligence the results are very encouraging, though it sometimes takes years of patient study and work."

The average age of the boys committed during the last biennial period has been something over fifteen years. When boys are in need of special restraint at that age they surely require more than a few months in the School to bring about the desired result.

The law also needs changing so that the Board will have greater latitude in the manner of releasing boys from the School. At present we are often prevented from releasing a boy, simply because we can find no one who is willing to give bonds for his care. If the Board were to have the power to make arrangements which would not be so binding, the releasing of boys would be greatly facilitated.

PERMANENT IMPROVEMENTS.

In the way of improvements our wants are many, especially so because we have not been able to make any expenditures along this line for the last two years.

To make the School self-supporting in furnishing all the grain, hay, vegetables, etc., we need more land, and I earnestly request that an effort be made to buy the Randall ranch, if satisfactory terms can be made.

If more land is purchased we will need to buy some more horses, cows, and farm tools.

We need a small appropriation for a piggery, so that we can properly care for our rapidly increasing herd of swine. This appropriation should be large enough to include the erection of an abattoir, so that we can slaughter our own stock.

The buildings for which we asked appropriations from the last Legislature ought certainly to be built next year. Besides the buildings asked for, I heartily approve of the suggestion made by your Honorable Board

to erect a Superintendent's cottage. The rooms now used by the Superintendent's family are sorely needed for the accommodations of officers who are now obliged to room outside the School.

We also need an ice-plant and refrigerating apparatus. At present our ice costs us from twenty to thirty dollars per ton, and it requires the closest economy to keep the expenditures for this necessity within any reasonable limit; not only this, but our meat costs us much more than it would if the contractor was not required to do the refrigerating and to furnish us meat just as wanted.

An appropriation is also needed to properly fence our property. The road fence now in use would be a disgrace upon any farm, and a number of cross fences are also needed.

Our cow-barn is not large enough to accommodate any more cows than we now have, and I would suggest that we secure enough money to excavate under the present building and put up a wall, and thus increase our stable room to just double its present capacity. We should also build a large hay and grain barn, so that all our products can be put under cover as soon as brought from the fields. A part of this barn could be used for housing the vegetables which are harvested each year.

In properly carrying on our horticultural work, we need a forcing-house with room enough to work during stormy weather. We also need some money to build walks and drives and further the work of improving our grounds.

In conclusion, I wish to acknowledge the kindness and many favors shown to me and to the Institution by so many citizens of the State—especially to our many friends in Amador County, who have ever tried to uphold and assist in this great work of uplifting and bettering the condition of the youth of California.

To all those who have contributed to our library and reading-room, and especially to Chaplain Drahms, of San Quentin, who has sent us a large part of the books in our library, I extend many thanks.

The officers and employés of the School are entitled to a very large share of the credit for the success which has been attained, and to them I wish to extend my thanks for their efforts to serve the best interests of the School under so many trying circumstances.

To the Governor and other State officials who have shown us many favors, and especially to you, gentlemen of the Board, who have given such wise counsel and have ever been such a source of encouragement, I wish to acknowledge my deep appreciation and to express to you my great desire to merit the confidence which you have imposed upon me.

With the hope that "He who doeth all things well" may guide us and help us to abundant success, I beg to subscribe myself,

Yours, very respectfully,

E. CARL BANK,
Superintendent.

REPORT OF SECRETARY.

PRESTON SCHOOL OF INDUSTRY,
WATERMAN, CAL., October 10, 1896. }

To the Honorable Board of Trustees of the Preston School of Industry:

GENTLEMEN: I have the honor to submit, herewith, for your consideration, my second biennial report: exhibiting in tabular form—

1. The cash receipts, from all sources, during the forty-sixth and forty-seventh fiscal years.
2. The cash disbursements during the forty-sixth and forty-seventh fiscal years.
3. The department issues, from the Commissary Department, during the forty-sixth and forty-seventh fiscal years.
4. The stock issues, from the Commissary Department, during the forty-sixth and forty-seventh fiscal years.
5. The status of our several appropriations on the 30th day of June, 1896.
6. An inventory taken on the 30th day of June, 1896.
7. A trial balance taken on the 30th day of June, 1896.
8. Certificate of Expert Accountant.

Very respectfully,

H. R. BERNARD,
Secretary.

TABLE No. 1.

Cash Receipts during the Forty-sixth and Forty-seventh Fiscal Years, ending June 30, 1896.

Months.	General Appropriation.			Drayages of "Contract" Supplies.	Sale of Produce and Supplies from Departments.	Coin Found.
	Appropriation for Completion of Buildings, etc., \$145,000. (Act. Approved March 3, 1893.) Balance July 1, 1894, \$61,121 68.	Balance Appropriation for Maintenance from Forty-fifth Fiscal Year, \$14,546 17; Forty-sixth, \$35,000 00; Total, \$49,546 17.	Appropriation for Maintenance during Forty-seventh Fiscal Year, \$50,000. (Act. Approved March 28, 1895.)			
1894—July	\$1,773 78	\$2,971 27				
August	7,791 56	4,536 95				
September	8,219 28	1,403 22				
October	12,971 37	4,438 75		\$25 25		
November	796 72	1,461 56		1 00	\$19 72	
December	3,134 63	4,336 13		23 25	18 26	
1895—January	4,839 72	3,572 39		2 64		
February	520 79	2,404 94		18 50		
March	8,415 28	1,831 98		13 50	35 43	
April	2,989 45	8,972 22		13 50	4 90	
May	1,771 60	3,828 84		23 69		
June	2,489 40	6,596 08		50		\$10 00
July	1,171 40	3,011 07				
August	1,623 86	16 50	\$8,400 52	32 10	20 55	
September	651 37		4,184 30	4 06		
October			4,165 80	8 80	28 80	
November			4,141 95	10 00	2 06	
December	917 86		4,101 99	11 80	14 10	
1896—January	330 31		2,137 83	7 65	26 10	
February			4,232 89	5 25		
March			4,009 17	3 95	36 90	
April			3,831 92	10 80	23 60	
May			4,241 88	6 15		
June						
Totals	\$60,408 38	\$49,331 90	\$43,548 25	\$223 39	\$230 47	\$10 00

TABLE No. 1—Continued.

Months.	Freight and Expressage Rebate.	Water Power (Sale of Surplus Water).	Sale of Stores from Comm. Department.	Overdrafts for Payment Claims.	Shoemaking Department (Rep. Work.)	Tailoring Dept.	Carpentering Dept.	Engineer's Dept.	Totals.
1894—July	-----	-----	-----	-----	-----	-----	-----	-----	\$4,745 05
August	-----	-----	-----	-----	-----	-----	-----	-----	12,328 51
September	-----	-----	-----	-----	-----	-----	-----	-----	9,622 50
October	\$2 33	-----	-----	-----	-----	-----	-----	-----	17,438 70
November	3 60	-----	-----	-----	-----	-----	-----	-----	2,282 60
December	64	-----	-----	-----	-----	-----	-----	-----	7,512 91
1895—January	-----	-----	-----	-----	-----	-----	-----	-----	8,414 75
February	25	-----	\$3 35	-----	-----	-----	-----	-----	2,947 83
March	7 35	-----	95	-----	-----	-----	-----	-----	10,304 49
April	43	-----	3 24	-----	-----	-----	-----	-----	11,983 74
May	4 12	-----	-----	-----	-----	-----	-----	-----	5,647 25
June	-----	\$9 00	-----	-----	-----	-----	-----	-----	9,135 62
July	-----	-----	34 62	\$14 22	\$0 75	-----	-----	-----	4,182 47
August	-----	-----	-----	-----	-----	-----	-----	-----	-----
September	-----	25 50	34 47	25 00	16 65	-----	-----	-----	10,195 15
October	-----	4 00	-----	-----	5 00	\$12 00	-----	-----	4,860 73
November	-----	3 00	-----	-----	3 20	-----	-----	-----	4,209 60
December	-----	-----	2 42	-----	3 15	85 00	-----	-----	5,162 44
1896—January	-----	-----	-----	-----	4 40	-----	-----	-----	4,462 60
February	-----	9 37	-----	-----	1 85	-----	-----	-----	2,252 80
March	-----	6 04	-----	-----	4 80	14 75	\$0 85	\$0 50	4,265 08
April	26	-----	-----	-----	7 50	-----	-----	-----	4,057 78
May	-----	-----	3 87	-----	1 75	-----	-----	-----	3,921 94
June	-----	-----	13 19	15 62	3 20	3 25	-----	-----	4,283 29
Totals	\$18 98	\$41 50	\$111 52	\$54 84	\$52 25	\$115 00	\$0 85	\$0 50	\$154,197 83

TABLE No. 2.

Cash Disbursements during the Forty-sixth and Forty-seventh Fiscal Years, ending June 30, 1896.

Months.	Salaries.	Water-Power.	Permanent Improvement.	Labor.	Repairs.	Completing Administration Building.	Completing Trades School Building.	Completing Power-House and Tunnel.
1894- July			\$614 70		\$15 00	\$1,532 50	\$11,014 62	\$216 00
August	\$1,752 35		800 88	\$463 18	37 95		37 34	697 86
September	1,020 21		605 13	313 27	61 17		8,158 27	1,412 96
October	1,099 83	\$99 78	945 76	341 69				1,152 00
November	1,200 00		1,189 66	45 50	42 48			1,351 02
December	1,223 33		1,255 72	43 75	19 80			795 08
1895- January	1,429 33		530 44		22 87	457 38		216 00
February	5 00		1,061 61	2 00	56 47			634 40
March	3,679 14	203 83	1,280 78	38 50	194 43	457 41	358 74	146 39
April	3,755 88		206 34	134 76	12 00			
May	2,082 81		340 33	8 00	47 80			
June	2,067 24		176 42		22 65			
July	2,135 33		307 10	3 50	40 75			
August	2,141 91		72 25					
September	2,187 83		61 75		28 90			
October	2,217 83		5 51		15 45			
November	2,207 83		22 71		2 60			
December	2,206 08		14 96		25 25			
1896- January	2,187 83		32 67		38 10			
February	2,325 34		40 87		13 00			
March	2,245 58		01		65			
April	2,308 25		159 05		120 05			
May	2,225 08		1 25		8 50			
June	2,186 58		84		1 51			
Totals	\$45,890 59	\$303 61	\$9,726 74	\$1,394 15	\$827 38	\$2,447 29	\$19,692 43	\$5,621 71

TABLE No. 2—Continued.

Months.	Shelter Building.	Architect's Fees.	Fence.	Sewer.	Trustees' Expenses.	Supplies Commissary.	Contingency Fund (Deposit).	Medical Services.
1894—July	-----	\$554 88	\$21 31	\$9 57	\$111 30	\$570 35	-----	\$28 53
August	-----	-----	-----	-----	-----	476 81	-----	74 20
September	-----	-----	-----	-----	-----	877 44	-----	-----
October	\$346 63	349 95	150 11	-----	111 95	218 53	\$28 58	-----
November	-----	-----	-----	-----	-----	24 32	-----	-----
December	-----	-----	346 49	153 84	78 95	962 14	24 32	206 65
1895—January	-----	-----	16 55	133 42	64 55	300 57	42 15	110 60
February	-----	-----	-----	-----	55 80	990 68	2 64	37 07
March	1 70	-----	-----	-----	92 25	1,429 20	22 10	116 83
April	191 80	-----	-----	-----	165 25	1,830 64	57 23	143 62
May	147 31	-----	-----	-----	64 95	3,304 33	22 07	66 00
June	-----	-----	-----	-----	56 85	3,121 31	46 81	51 25
July	-----	-----	-----	-----	22 00	2,126 02	50 14	11 25
August	-----	-----	-----	-----	23 49	2,819 27	-----	-----
September	-----	-----	-----	-----	92 20	2,811 33	154 27	6 75
October	-----	-----	-----	-----	42 35	95 06	-----	6 00
November	-----	-----	-----	-----	57 20	2,658 03	43 80	14 75
December	-----	-----	-----	-----	35 10	3,183 94	102 63	2 25
1896—January	-----	-----	-----	-----	-----	2,728 25	30 30	-----
February	-----	-----	-----	-----	34 15	2,232 87	44 97	-----
March	-----	-----	-----	-----	-----	2,447 18	27 10	3 75
April	-----	-----	-----	-----	34 75	1,805 71	53 70	5 75
May	-----	-----	-----	-----	41 35	1,822 51	40 02	15 75
June	-----	-----	-----	-----	17 10	2,064 42	41 41	17 25
Totals	\$687 44	\$1,004 83	\$534 46	\$296 83	\$1,201 54	\$40,781 85	\$859 30	\$918 25

TABLE No. 2—Continued.

Months.	Live Stock.	Stable.	Tools and Machinery.	Transportat'n of Inmates Discharged and Paroled.	Rents.	General Expense.*	Totals.
1894—July	-----	\$52 20	-----	-----	-----	-----	\$681 90
August	-----	41 00	\$188 38	-----	-----	\$105 13	17,984 31
September	-----	-----	-----	-----	-----	-----	4,062 12
October	776 13	-----	-----	-----	-----	-----	16,820 77
November	-----	1 50	2,556 00	-----	-----	340 32	2,899 24
December	-----	-----	-----	-----	-----	26 75	8,768 49
1895—January	1,324 71	50 68	824 87	-----	-----	884 39	6,455 44
February	185 49	20 25	2,238 35	-----	-----	24 42	2,966 24
March	170 50	-----	6 40	-----	-----	340 91	390 34
April	451 35	19 25	6,152 00	-----	-----	-----	15,747 24
May	358 92	38 50	893 77	-----	-----	497 80	8,353 25
June	-----	-----	527 75	\$16 10	\$40 00	289 96	6,834 84
July	120 00	105 20	-----	-----	-----	96 88	5,867 94
August	-----	100 02	-----	-----	-----	71 38	4,817 35
September	-----	-----	-----	-----	-----	103 88	5,160 80
October	-----	11 12	-----	-----	-----	159 58	5,513 73
November	-----	11 75	-----	-----	-----	22 24	2,346 51
December	-----	18 50	-----	-----	-----	22 24	5,039 11
1896—January	-----	16 25	-----	-----	-----	13 69	5,641 68
February	-----	16 00	-----	-----	-----	55 22	5,061 05
March	-----	12 90	-----	4 35	-----	27 90	4,788 54
April	-----	20 75	-----	-----	-----	80 09	4,768 73
May	-----	15 65	-----	3 90	-----	23 71	4,579 38
June	-----	11 75	-----	-----	40 00	72 57	182 78
-----	-----	23 00	-----	-----	-----	182 78	4,388 99
Totals	\$3,823 48	\$586 07	\$13,387 52	\$24 35	\$80 00	298 07	\$154,197 83

*Traveling expenses, freight and expressage, advertising, and miscellaneous expenses.

TABLE No. 3.

Exhibit of "Department" Issues from Commissary Department, during the Forty-sixth and Forty-seventh Fiscal Years, ending June 30, 1896.

Months.	Superinten- dent's Residence— Current Expense.	Superinten- dent's Residence— Furniture and Fixtures.	Boys' Mess.	Officers' Mess.	Academic Department.	Hospital Department.	Commissary Department.
1894—July	\$41 73	\$18 65	\$32 63	\$159 95	---	\$2 62	\$1 21
August	65 80	---	86 25	224 10	\$3 66	---	83
September	93 71	---	221 39	313 00	201 69	15 11	1 00
October	116 25	---	311 54	292 53	74 21	181 61	1 00
November	70 55	82 65	311 29	275 99	145 65	88 70	3 66
December	72 24	19 25	466 86	437 62	23 23	20 85	---
1895—January	94 51	---	496 33	424 97	73 15	25 37	50
February	83 24	94 85	513 31	437 55	8 19	21 35	---
March	87 44	---	630 18	498 61	88 40	56 49	---
April	76 93	---	640 81	435 38	292 58	29 32	---
May	90 89	---	670 65	519 92	58 59	51 68	---
June	57 65	---	623 35	438 76	19 66	62 84	---
July	56 43	---	593 81	396 19	22 15	44 13	---
August	62 30	---	677 64	440 26	8 21	109 18	---
September	59 20	---	609 25	418 67	13 07	33 22	---
October	72 91	---	588 24	426 86	13 01	42 10	---
November	77 48	---	632 10	374 18	16 54	65 53	---
December	59 35	---	625 77	391 36	7 20	61 99	---
1896—January	62 59	---	565 42	407 65	4 06	53 00	---
February	48 50	---	561 13	302 94	50 32	36 34	6 61
March	64 93	---	594 38	398 01	5 07	68 16	---
April	53 11	---	598 59	331 03	9 00	96 28	40
May	51 44	---	737 69	435 35	15 60	82 02	---
June	39 21	---	689 68	454 44	53 29	54 49	---
Totals	\$1,658 39	\$215 40	\$12,478 29	\$9,235 32	\$1,206 59	\$1,302 78	\$15 21

TABLE No. 3—Continued.

Months.	Shoemaking Department.	Printing Department.	Boys' Department (Supplies)*	Officers' Department.	Housekeeping Department.	Engineering Department.	Repairs.	Improvements.
1894—July.....			\$31 19	\$804 65†	\$14 54			\$29 61
August.....			169 05		27 48			156 12
September.....			691 41		42 68	\$2 24		1 357 10
October.....			204 77		32 11	96 38		1,460 94
November.....			266 39		32 87	23 73		659 63
December.....	\$4 62		570 16	2 06	61 37	10 41		508 65
1895—January.....	9 25		529 95	1 05	17 70	65 34		749 36
February.....	16		728 70	2 52	8 71	95 37	\$9 61	32 00
March.....			1,043 47	66 50	12 18	13 31	15 47	433 36
April.....	93 75		621 07	1 24	28 56	406 63	12 00	257 38
May.....	49		403 91	2 72	14 90	493 96	6 25	216 63
June.....	15 00		564 36	3 00	12 27	282 89		141 62
July.....	18 60		786 46	2 07	10 21	99 58	40 75	257 12
August.....	18 25	\$212 47	622 25		24 97	209 03	22 65	48 25
September.....	80		319 31	1 68	23 32	581 47	28 90	65 12
October.....	57 70		486 85	42 14	14 73	141 79	15 45	387 26
November.....	18	152 99	192 21	58	12 26	11 04	45	251 51
December.....	124 05	1 75	197 71	2 40	10 67	184 61	24 50	551 75
1896—January.....	1 00	1 24	379 23	41	16 03	382 99	38 10	130 67
February.....	7 10	5 04	344 87	78	34 17	115 00	10 00	140 87
March.....		12	157 24	1 14	11 84	171 22		155 77
April.....	5 94	3 00	322 68	1 19	12 65	50 82	113 55	1 25
May.....		78	394 27	18	18 84	169 32	7 00	
June.....		25	240 96		20 46	71 91	1 51	
Totals.....	\$356 89	\$379 38	\$10,298 47	\$937 61	\$515 52	\$3,679 04	\$378 19	\$7,990 82

* Beds, bedding—other furnishings for boys' quarters and clothing. † Furniture.

NOTE.—Issues charged to the various trades departments are for tools and machinery (not for material) used in manufacturing and instructing.

TABLE No. 3—Continued.

Months.	Library Department.	Photographic Department.	Agricultural Department.	Horticultural Department.	Laundry Department.	Bakery Department.	Carpentering Department.	Tailoring Department.
1894—July	-----	\$3 48	\$29 50	\$46 36	\$42 28	-----	\$10 51	\$89 94
August	-----	8 65	254 53	17 35	5 21	-----	3 84	68
September	-----	22	137 62	3 27	1 09	-----	53 28	31 88
October	-----	-----	1,465 94	3 31	65 05	-----	9 78	255 79
November	-----	-----	235 41	7 45	49 81	\$26 46	25 86	76 17
December	-----	-----	142 61	10 33	6 20	33 03	16 03	16 71
1895—January	\$2 90	-----	147 38	-----	32 25	28 93	23 66	-----
February	-----	-----	288 23	26 75	9 76	35 37	89 56	6 70
March	-----	-----	122 33	47 53	13 87	3 00	10 98	-----
April	-----	-----	65 36	20 34	27 12	36 69	20 41	2 00
May	-----	-----	279 66	1,919 57	87 94	16 35	4 81	6 52
June	-----	-----	80 07	47 01	8 55	11 77	4 86	8 12
July	-----	-----	141 40	6 98	20 70	146 71	121 98	135 64
August	-----	-----	141 40	12 98	30 99	14 35	117 34	17 18
September	-----	-----	199 08	58 56	40 61	17 77	33 58	6 04
October	-----	-----	284 79	331 98	34 05	13 33	7 58	9 00
November	-----	-----	979 85	15 25	23 40	3 56	25 14	-----
December	-----	-----	92 87	18 00	33 42	11 40	2 02	7 60
1896—January	43	-----	168 36	16 49	26 18	14 11	27 54	8 20
February	03	18 43	106 54	82 62	32 11	12 46	1 61	7 85
March	-----	-----	241 40	17 20	38 79	12 23	27 01	17 34
April	-----	44 60	150 11	26 85	31 40	18 53	51	215 75
May	-----	-----	245 79	2 20	27 13	4 13	-----	-----
June	-----	55	1,027 88	54 15	-----	-----	-----	-----
Totals	\$3 36	\$75 93	\$7,033 20	\$2,792 53	\$687 91	\$460 80	\$638 63	\$919 11

TABLE No. 3—Continued.

Months.	Miscellaneous.	Officers' Rooms.	Offices (Supt. and Sect y).	Distributing Tank.	Trustees' Rooms.	Trades School Building.	Power-House.	Shelter Building.	Totals.
1894—July.....	\$5 08	-----	\$10 74	-----	\$4 27	-----	\$216 00	-----	\$1,454 14
August.....	128 32	-----	4 54	-----	-----	-----	966 87	\$421 44	2,386 81
September.....	311 29	-----	158 59	\$93 27	-----	-----	119 16	-----	2,271 82
October.....	318 14	\$299 72	-----	-----	-----	-----	-----	-----	5,022 00
November.....	381 79	29 00	1 33	-----	-----	-----	36 62	-----	-----
December.....	26 50	26 50	13 55	-----	-----	-----	22 89	-----	3,749 51
1895—January.....	363 21	29 52	7 03	-----	-----	-----	-----	-----	3,128 61
February.....	383 07	224 30	125 98	-----	19 25	-----	150 16	54 79	3,072 68
March.....	164 27	3 12	33 85	-----	-----	235 20	121 79	51 18	4,180 21
April.....	448 66	-----	24 54	-----	-----	-----	34 40	83 40	3,713 43
May.....	199 63	55	2 00	-----	-----	-----	16 39	-----	3,533 96
June.....	88 06	8 41	6 46	-----	-----	-----	-----	-----	4,995 64
July.....	75	235 17	7 82	-----	-----	-----	-----	-----	2,562 45
August.....	112 98	5 45	1 79	-----	-----	-----	-----	-----	2,892 95
September.....	427 00	-----	12 95	-----	-----	-----	-----	-----	3,023 58
October.....	-----	-----	4 80	-----	-----	-----	-----	-----	3,034 88
November.....	-----	-----	9 61	-----	-----	-----	-----	-----	3,157 19
December.....	-----	-----	59	-----	-----	-----	-----	-----	2,679 86
1896—January.....	30 75	-----	3 27	-----	-----	-----	59	-----	2,405 95
February.....	1 83	-----	6 00	-----	-----	-----	6 00	-----	2,320 87
March.....	4 90	-----	3 81	-----	-----	-----	-----	-----	1,927 50
April.....	56	-----	2 79	-----	-----	-----	-----	-----	1,816 67
May.....	-----	-----	4 51	-----	-----	-----	-----	-----	2,043 74
June.....	-----	1 79	2 99	-----	-----	-----	-----	-----	2,261 08
Totals.....	\$3,370 59	\$863 53	\$449 54	\$93 27	\$23 52	\$272 54	\$1,684 28	\$610 81	\$70,597 45

TABLE No. 4.

Exhibit of Stock Issued from Commissary Department during the Forty-sixth and Forty-seventh Fiscal Years, ending June 30, 1896.

Months.	Subsistence.	Fuel.	Lime and Cement.	Lumber.	Garden Seeds.	Forage.*	Leather and Findings.	Furniture.
1894—July	\$202 45	\$15 00	\$216 00	---	\$15 35	\$24 72	\$2 07	---
August	310 40	---	404 05	\$700 40	---	58 81	77 95	\$69 70
September	389 67	15 00	63 00	274 19	---	1 50	2 50	293 31
October	518 47	25 91	432 00	343 70	---	1,184 89	50	136 65
November	611 36	60 00	673 80	255 88	106 95	73 78	135 89	15 00
December	731 91	250 00	216 00	81 72	---	98 52	27 10	67 63
1895—January	880 65	305 00	432 00	193 62	7 73	61 27	3 75	414 90
February	947 71	158 10	---	394 86	46 47	102 20	112 30	391 75
March	1,109 13	90 00	217 54	118 73	35 30	82 59	8 08	30 00
April	1,089 94	186 95	216 00	244 21	---	39 92	197 10	---
May	1,209 10	229 56	---	---	---	56 43	82 38	2 50
June	1,062 36	135 75	---	6 04	40	63 89	100 45	398 69
July	940 18	16 23	251 12	6 00	---	65 16	20 80	---
August	1,098 55	210 11	2 00	117 19	---	49 60	149 45	---
September	1,015 26	503 97	---	101 93	---	49 76	7 75	25 75
October	1,000 73	127 62	51 60	60 79	---	471 28	243 85	---
November	1,043 38	18 00	---	156 08	---	957 27	2 50	---
December	1,074 31	214 16	51 60	45 55	---	61 02	132 05	---
1896—January	1,024 91	380 79	---	66 01	---	84 18	104 70	---
February	892 84	108 90	---	141 61	---	61 30	80 15	---
March	1,020 32	217 20	---	62 50	---	105 74	14 75	---
April	966 97	36 85	---	128 76	---	100 78	97 25	---
May	1,210 24	198 73	---	---	---	68 07	53 55	---
June	1,175 56	67 00	---	---	---	1,009 64	19 00	---
Totals	\$21,526 40	\$3,570 83	\$3,442 71	\$3,499 80	\$212 20	\$4,952 27	\$1,675 87	\$1,845 88

* Most of this forage was received from Agricultural Department.

TABLE No. 4—Continued.

Months.	Live Stock.	Soap, Starch, Etc.	Miscellaneous.	Hats, Caps, Buttons, and Overalls.	Brooms and Brushes.	Crockery.	Boots and Shoes.	Stationery and Books (School).
1894—July		\$4 14	\$26 58	\$13 77	\$4 94	\$6 07		\$3 61
August		2 97	32 98	142 31	10 13	7 38	\$10 70	18 54
September		5 88	213 73	152 75	27 40	8 14	24 70	202 40
October		4 85	887 75	105 45	16 88	19 36	64 65	84 22
November		5 87	391 92	137 79	14 26	39 73	37 90	147 41
December		27 14	44 74	353 24	28 91	29 37	112 05	43 79
1895—January		1 41	173 81	172 38	20 86	45 89	106 75	75 86
February		20 56	131 19	162 38	16 65	29 61	41 80	79 21
March			109 64	84 57	23 22	39 66	70 60	48 61
April			215 71	82 48	20 35	21 05	62 85	301 85
May			118 19	84 59	10 48	25 38	38 55	63 02
June			52 21	61 45	25 98	31 22	153 50	36 71
July	\$15 75	17 96	525 81	70 60	8 93	16 40	50 75	21 54
August		28 84	296 55	69 83	32 40	18 27	47 45	12 42
September		31 14	147 08	27 99	23 93	3 02	49 75	16 58
October		34 85	274 94	20 85	19 48	10 72	67 05	18 83
November		28 39	63 66	19 48	11 43	15 57	23 70	32 50
December	16 80		280 88	44 37	12 36	6 87	32 40	12 10
1896—January	10 08		87 98	54 48	13 44	12 82	27 25	7 79
February		38 55	113 46	34 66	14 98	5 30	31 95	61 24
March		27 45	42 75	18 59	5 70	17 18	17 55	10 71
April		34 47	108 76	26 55	12 27	5 46	43 20	12 74
May		35 08	26 83	63 38	17 75	8 96	93 10	21 47
June		25 98	23 32	15 99	19 17	6 98	34 20	54 90
June		40 01						
Totals	\$42 63	\$446 80	\$4,390 47	\$2,019 93	\$411 90	\$429 81	\$1,242 40	\$1,388 05

TABLE No. 4—Continued.

Months.		Paints, Oils, Etc.	Dry Goods.*	Cloth, Boys' Uniform and Citizens'.	Hardware "A" and "B."	Underwear.	Drugs and Medicines.	Totals.
1894—	July.....	\$4 55	\$7 42	\$50 87	\$51 27	-----	\$6 06	\$604 00
	August.....	4 10	38 66	-----	502 43	-----	3 65	2,377 33
	September.....	24 68	92 11	-----	234 70	-----	11 00	1,813 05
	October.....	31 85	105 50	-----	1,309 29	-----	183 42	5,612 00
	November.....	20 19	78 13	101 26	640 94	-----	76 39	3,746 15
1895—	December.....	24 41	241 03	52 73	732 09	-----	15 46	3,125 21
	January.....	40 25	78 38	120 52	261 05	-----	24 17	3,072 68
	February.....	68 95	258 22	150 86	1,002 24	-----	23 74	4,161 85
	March.....	124 45	337 21	102 28	636 12	\$33 25	50 70	3,713 43
	April.....	47 82	140 81	156 57	475 46	13 95	30 30	3,583 32
1896—	May.....	19 92	68 56	104 66	576 43	-----	28 47	2,931 72
	June.....	21 29	86 58	153 08	494 34	50	41 07	2,523 32
	July.....	5 05	100 58	52 80	242 43	-----	26 63	2,853 41
	August.....	5 25	136 93	291 73	237 13	-----	87 25	2,950 95
	September.....	18 13	165 75	60 03	621 62	50	27 79	2,871 98
1896—	October.....	42 59	159 18	58 33	420 51	-----	33 79	3,142 74
	November.....	12 27	109 64	-----	100 42	19 56	52 87	2,683 52
	December.....	134 60	42 95	58 76	137 48	1 39	35 80	2,408 91
	January.....	54 83	120 82	59 50	132 94	1 61	33 49	2,320 87
	February.....	3 71	127 93	60 77	103 91	29 90	27 41	1,927 50
1896—	March.....	14 93	57 03	48 77	78 15	5 59	53 18	1,825 11
	April.....	25 77	144 16	58 65	158 93	-----	43 06	2,005 24
	May.....	38 38	108 96	59 08	217 66	1 38	52 56	2,266 08
	June.....	4 38	43 79	323 75	38 55	-----	34 32	2,916 56
Totals.....		\$732 35	\$2,910 33	\$2,131 00	\$9,406 09	\$107 63	\$1,007 58	\$67,452 93

*Bed linen, toweling, ticking, etc.

TABLE No. 5.

Exhibit showing Financial Condition June 30, 1896.

GENERAL FUND.		
<i>General appropriation for forty-fifth fiscal year. (Act approved March 25, 1893)</i>		\$35,000 00
Balance July 1, 1894	\$14,546 17	
Contra:		
Disbursed for support	14,546 17	
No balance.		
<i>Appropriation for maintenance forty-sixth fiscal year. (Act approved March 25, 1893)</i>		\$35,000 00
Contra:		
Disbursed for support		34,835 73
Balance (unavailable) reverting to State Treasury		\$164 27
<i>Appropriation for maintenance forty-seventh fiscal year. (Act approved March 28, 1895)</i>		\$50,000 00
Contra:		
Disbursed for support	\$43,548 25	
Claims unpaid:		
May claims for supplies	\$1,942 17	
June claims for salaries	2,186 58	
June claims for supplies	2,231 59	
Total	6,360 34	
Sum total		49,908 59
Balance available for support forty-eighth fiscal year		\$91 41
<i>Appropriation for maintenance forty-eighth fiscal year</i>		50,000 00
SPECIAL APPROPRIATION.		
<i>Appropriation for completion buildings, etc. (Act approved March 3, 1893)</i>		\$145,000 00
Balance available July 1, 1894		\$61,121 68
Contra:		
Disbursed for building and equipment	\$60,408 38	
May claims unpaid	359 20	
Total		60,767 58
Balance available for building purposes		354 10
CONTINGENCY FUND.		
Cash on hand July 1, 1894		\$10 01
Cash receipts forty-sixth and forty-seventh fiscal years		850 90
Total		\$860 91
Contra:		
Cash disbursed for sundry purposes		332 00
Cash on hand June 30, 1896		528 91
Total available for all purposes June 30, 1896		\$50,974 42

TABLE No. 6.

Inventory taken June 30, 1896.

Main Administration Building	\$153,341 14	
Horse stable	3,795 00	
Cow-barn	3,597 00	
		\$160,733 14
Trades School Building		27,173 43
Power-house and tunnel		5,647 41
"Shelter" Building (tool-house)		687 44
Water-power (water-rights, ditches, reservoir, engineering, etc.)		63,339 51
Real estate		6,900 00
Fences		1,126 26
Orchard (cost of trees)		321 35
Sewer system		1,206 00
Permanent improvement (cost to date)		23,237 16
Fixtures in Administration Building*		4,452 80
		\$294,824 50
DEPARTMENT INVENTORY.		
Superintendent's Department (current expense)	\$298 27	
Superintendent's Department (residence)	2,214 69	
Offices (furniture, fixtures, etc.)	688 42	
Officers' rooms	2,502 24	
Officers' mess	475 37	
Trustees' rooms	666 82	
Boys' mess	489 06	
Boys' Department (supplies)	2,708 53	
Housekeeping Department	783 27	
Academic Department	550 47	
Library Department	173 16	
Hospital Department	411 48	
Commissary Department	88 55	
Photographic Department	42 91	
Agricultural Department	5,252 80	
Horticultural Department	89 90	
Laundry Department	78 26	
Bakery Department	269 62	
Carpentering Department	249 28	
Tailoring Department	495 39	
Printing Department	476 00	
Engineer's Department	1,286 85	
Miscellaneous Department	110 00	
Bandmaster's Department	392 60	
Stock in Commissary Department	1,835 73	
		22,629 67
MACHINERY.		
1 steam boiler	\$500 00	
1 43,000-gal. "Hyatt" filter	600 00	
3 Pelton water-wheels, connections, shafting, belting, etc.	5,696 65	
2 Westinghouse dynamos, switch-board, instruments, and mains	3,700 39	
1 Troy washer, 1 Troy mangle, 1 Troy wringer, 1 Troy drier, belting, and steam connections	2,084 00	
		12,581 04
Total		\$330,035 21

* Electrical fixtures, hose reels and hose, screens and wire guards, window shades.

TABLE No. 7.

Trial Balance from the Books of the Preston School of Industry, taken July 1, 1896.

Fol.	Account.	Dr.	Cr.
2	Salary	\$58,445 16	
6	Traveling expense	3,564 99	
14	Freight and expressage	721 13	
18	Advertising	1,106 10	
21	General appropriation (old)		\$160,000 00
23	Appropriation for completing building		144,286 70
24	State Treasurer	6,451 75	
25	General appropriation (forty-seventh fiscal year)		50,000 00
26	Appropriation for maintenance (forty-fifth and forty-sixth fiscal years)		69,835 73
28	Maintenance	850 11	
33	Miscellaneous expense	4,599 81	
38	Real estate	6,900 00	
40	Water-power	60,796 11	
43	Permanent improvement	23,237 16	
46	Labor	1,728 03	
51	Hugh P. Cox, night watch		50 00
52	Repairs	959 00	
54	Main Administration Building	154,648 16	
55	Trades School Building	26,137 34	
55	"Shelter" Building	687 44	
56	Hothouse	77 27	
56	Power-house and tunnel	5,597 41	
58	Architect's fees	8,596 05	
60	Rents	253 50	
61	Fence	1,126 26	
72	Sewer	1,206 00	
79	William Woolsey, Ione		274 18
83	B. Isaacs & Bro., Ione		179 61
86	Trustees' expense	2,416 89	
87	H. R. Bernard, Secretary		100 00
89	E. Carl Bank, Superintendent		549 28
93	John MacLean, gardener		75 00
98	State Prison at Folsom		1,228 73
101	J. Kelly, Ione		28 90
110	M. E. Fassett, Ione	4 00	
111	G. F. Wood, Assistant Superintendent		112 20
112	W. R. Eckart, M.E., Consulting Engineer		50 00
113	Joseph Sibole, farmer		67 75
115	Mrs. Mary Bow, nurse		40 00
116	Frank Dunlap, laborer		45 00
117	H. Harris, Captain Co. B		65 00
118	John Loskill, teamster		35 00
119	Percy Mace, commissary		75 00
120	Caleb Bonham, ditch-tender		40 25
121	Miss Mattie Hill, cook, officers' mess		40 00
122	Mrs. C. W. Swain, matron		30 00
123	Miss Mary E. Orr, matron		30 00
124	Arthur F. Adams, bandmaster		55 10
125	Mrs. E. Carl Bank, chief matron		11 00
126	Joseph Kidd, assistant farmer		40 00
127	J. S. Phillips, watchman		69 50
128	Mrs. A. S. Power, matron		22 00
129	Mrs. E. C. Snapp, matron		30 00
129	Miss M. Edith Traner, matron		25 00
130	Miss Ida Hill, matron		30 00
131	Geo. Folger, stockman		54 55
132	Albert Heeth, Jr., tailor		65 00
133	Mrs. C. T. Bartlett, teacher		35 00
134	K. B. Piper, teacher		75 00
135	Mrs. C. L. Anderson, cook, boys' mess		30 00
136	Miss Mary Loskill, baker		30 00
137	Wm. S. Williams, teacher		75 00
137	Geo. H. Dunlap, assistant electrician		50 00
138	John H. Sharman, shoemaker		66 50
138	Lewis Lamb, carpenter		77 20
139	James L. Small, D.D.S., Ione		27 00

TABLE No. 7—Continued.

Fol.	Account.	Dr.	Cr.
139	Miss Gladys McCauley, matron.....		\$30 00
140	Charles Joses, teamster.....		45 00
140	G. L. Thunen, electrician.....		75 00
141	Raphael M. Blair, military instructor.....		75 00
141	Carlton Bartlett, printer.....		50 00
142	Commissary.....	\$1,835 73	
144	Superintendent's residence, current expenses.....	1,725 30	
145	Superintendent's residence, furniture and fixtures.....	1,859 23	
146	Offices, Superintendent's and Secretary's.....	690 92	
147	Boys' mess.....	12,637 37	
148	Officers' mess.....	10,468 08	
150	Commissary Department.....	80 53	
151	Library Department.....	119 95	
152	Photographic gallery.....	83 35	
154	Engineer's Department.....	3,870 17	
155	Profit and loss, in Commissary Department.....	6 83	
155	Carpentry Department.....	636 00	
156	Hospital Department.....	1,384 31	
156	Laundry Department.....	687 91	
157	Tailoring Department.....	804 11	
158	Horticultural Department.....	2,011 75	
158	Academic Department.....	1,206 59	
159	Shoemaking Department.....	302 40	
159	Bakery Department.....	460 80	
160	Trustees' rooms.....	478 22	
160	Officers' rooms.....	863 53	
160	Distributing tank.....	93 27	
161	Miscellaneous Department.....	4,056 03	
162	Boys' Department (supplies).....	11,869 51	
163	Agricultural Department.....	1,702 71	
163	Printing Department.....	379 38	
164	Housekeeping Department.....	875 43	
164	Officers' Department (supplies).....	935 16	
197	"Contingency" Fund.....	528 91	
206	Medical services.....	550 50	
210	Live Stock Department.....	2,137 34	
211	Stable.....	741 84	
218	Tools and machinery.....	13,437 38	
233	J. W. Sibole, Sr., Ione.....	3 50	
239	John Joses, Ione.....	3 00	
241	Sacramento Glove Factory, Sacramento.....		4 00
241	James McMurry, Ione.....		3 75
245	Rev. G. H. Bigelow, Chaplain altern.....		10 00
247	Hall, Luhrs & Co., Sacramento.....		20 00
248	Profit and loss (coin found).....		10 00
248	Transportation of inmates (discharged and paroled).....	24 35	
248	McComb & Ives, Ione.....	4 44	
249	L. & M. Alexander & Bro., San Francisco.....		40
249	Holbrook, Merrill & Stetson, San Francisco.....		7 00
250	Joseph Foster, Camanche.....		2 25
253	Sacramento Coal Co.....		51 73
253	Rev. D. W. Chilson, Ione.....		5 00
254	J. H. McKie, Ione.....		49 10
255	Jasper Johnson, Ione.....		4 05
255	Rev. S. C. Scott, Chaplain.....		5 00
255	Rev. J. J. Gleason, Chaplain.....		10 00
257	H. A. McCall, San Francisco.....		5 00
257	"San Francisco Journal of Commerce," San Francisco.....		20 00
257	"The Amador Record," Sutter Creek.....		12 00
257	Bates & Suydam, San Francisco.....		20 00
257	B. Pasquale & Sons, San Francisco.....		48 00
279	Whittaker & Ray Co., San Francisco.....		35 01
281	Miller, Sloss & Scott, San Francisco.....		49 18
285	Getz Bros. & Co., San Francisco.....		90 74
287	Amador County Roller Flour Mills, Ione.....		294 21
291	J. D. Perkins & Son, Ione.....		23 05
294	A. L. Adams, M.D., Ione.....		59 00
296	A. Nichols, Ione.....	5 30	
297	Mrs. John Hartmann, Ione.....		9 70
298	Mrs. I. B. Gregory, Ione.....		4 45

TABLE No. 7—Continued.

Fol.	Account.	Dr.	Cr.
298	Jud C. Jones, Ione		\$6 10
299	Wasserman, Davis & Co., Sacramento		49 50
300	Daniel Stewart, Ione		533 09
254	A. Caminetti, Jackson	\$67 00	
301	Engineering and surveying	2,485 90	
306	Sacramento Publishing Co., Sacramento		36 00
312	Special deficiency appropriation		21,336 16
313	John Muldoon, Ione		45 00
314	Legal expense	1,340 00	
321	H. Levi & Co., San Francisco	4 14	
321	H. Levi & Co., San Francisco		291 02
323	Ione Coal and Iron Co., Ione		249 25
325	H. S. Crocker Co., San Francisco		97 81
325	Christianson & Co., Sacramento		62 94
326	Stoll & Van Bergen, San Francisco		65 25
327	Kimball & Upson, Sacramento		20 25
328	American Union Fish Co., San Francisco		16 20
328	Sacramento Glass and Crockery Co., Sacramento		15 24
330	San José Woolen Mill Co., San José		172 88
330	Whitaker & Waddell, Ione		615 04
331	G. J. Yager, Ione		12 50
331	Sullivan-Kelly Co., Sacramento		32 50
333	Baker & Hamilton, San Francisco		199 88
333	Newman & Bagley, Ione		29 18
334	D. Dierssen Co., Sacramento		99 97
334	Fred Kolliker, Sacramento		39 43
350	L. J. Maddux (Trustee)		6 50
351	E. M. Preston (Trustee)		18 35
351	Fayette Mace (Trustee)		16 50
358	H. T. Holmes Lime Co., San Francisco	30 75	
359	J. M. Litchfield & Co., San Francisco		251 25
360	Troy Laundry Machinery Co., San Francisco		17 00
360	John Breuner, Sacramento		30 00
	Totals	\$453,598 59	\$453,598 59

CERTIFICATE OF EXPERT ACCOUNTANT.

PRESTON SCHOOL OF INDUSTRY,)
 WATERMAN, CAL., September 3, 1896.)

I hereby certify that I have examined the official books of the Preston School of Industry, consisting of the regular books of the School and the books of the "Cadets' Cash," and find the same correct.

I also certify that the Secretary, H. R. Bernard, has kept the accounts of said books in such a manner as to exhibit clearly all the financial transactions during the forty-sixth and forty-seventh fiscal years; and I further certify that I have found vouchers, properly numbered and filed, for all cash disbursements for the fiscal year ending June 30, 1896.

Respectfully submitted.

(Signed:) L. WADHAM,
 Expert Accountant for the State Board of Prison Directors.

REPORT OF PHYSICIAN.

WATERMAN, CAL., August 1, 1896.

To the Honorable Board of Trustees of the Preston School of Industry:

GENTLEMEN: I herewith submit the following, as my first report, for your consideration.

We have had a great number of hospital inmates for the last year. This, however, is not to be wondered at, when we take into consideration the character of the boys who have been committed to our Institution, the great majority of them having been exposed to all kinds of contamination prior to their commitment.

This Institution has been very fortunate in not having any contagious disease become epidemic, although at several times it has been threatened; but, from good and prompt management on the part of the Superintendent, and the vigilance of the Matron of the hospital, such epidemics have been happily averted.

We have had a rapidly increasing number of inmates, and sickness in its various forms has steadily increased in proportion.

We have had a few cases of incipient phthisis, which we think have been benefited by enforced regularity of habits, good food, and sanitary surroundings. A few cases of epilepsy and chorea have had attention. We have had three cases of scarlet fever, which required great vigilance on the part of the hospital management, with the full and untiring assistance of the Superintendent and Matron, to prevent the same becoming epidemic. Had it not been immediately quarantined, there is no telling the havoc that might have been wrought. Typhoid fever, also, at one time menaced the Institution by a threatened epidemic. We have at this time no place for isolating such cases, it is worth your honorable body to note.

We have had epidemic influenza and tonsillitis, a great number of cases of bilious malarial fevers, and several cases of pneumonia. We have also had quite a number of fractures, bruises, abscesses, and contusions, with fair recovery in each case.

We have had only two deaths since the opening of the Institution, and none this year. This we consider a remarkably low death-rate, for many of the boys are in a very bad condition when received, owing to their vicious habits and general dissipation, which as a rule has been their practice prior to commitment.

One death was due to an accidental burn, resulting in intestinal ulceration, and one was caused by pulmonary congestion—was sick when he entered the School. Each was accorded decent interment on the grounds of the Institution, and their resting-places were properly marked; so that, if in the future their parents or friends so desire, they may be removed to other places for burial.

The sanitary condition of the Preston School of Industry is good. Cleanliness prevails throughout the entire Institution, from basement to garret.

The bathing facilities are unsurpassed and the regular bathing, as a sanitary measure, is rigidly enforced.

The drinking water is conveyed by a pipe from a spring to the Administration building, and its source is free from any possible contamination; being protected by a fence, a screen over the surface of the water, shaded by a roof, and properly ditched above the spring to prevent surface water from flowing into the spring. The Board and Superintendent are entitled to great praise for their efforts to supply the Institution with pure water.

We know the Board recognizes the fact that we should have a separate hospital building, for as we are now situated, using one of the dormitories for a hospital, with every other dormitory and room in the main Administration building full, we have *no* place for the isolation of any contagious disease; and, as we receive boys from all parts of the State, we are in imminent danger of having some contagious or infectious disease brought directly into the main building, and thereby expose all the officers, attendants, and inmates to said contagion or infection, and we deem it a matter of great importance that the State should endeavor to protect those whom they are trying to reform, and their necessary attendants, from all source of disease contamination. I hope that the Board will pardon me for referring to this defect or danger from which the Institution now suffers for the want of a separate hospital building, for I know they are powerless to improve or avert; but, realizing the danger to which our Institution is daily exposed, I cannot refrain from asking the Board to bring this matter before the authorities of our State, so that, if it is possible, some fund may be appropriated for meeting this emergency, and build for this benevolent institution a suitable and separate hospital building, wherein all contagious and infectious diseases may be promptly quarantined and treated.

We cannot close our remarks without thanking all the officers of the Institution for their universal kindness and courtesy shown this department, and for the care and favors to all the boys of the School, when suffering the least indisposition.

Respectfully submitted.

A. L. ADAMS, M.D.,
Physician to the Preston School of Industry.

BIENNIAL REPORT OF TRUSTEES

OF THE

WHITTIER STATE SCHOOL

LOCATED AT WHITTIER, LOS ANGELES COUNTY,

FOR THE

TWO YEARS ENDING JUNE 30, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1896.

REPORT OF BOARD OF TRUSTEES.

WHITTIER, CAL., July 1, 1896.

To his Excellency JAMES H. BUDD, Governor of California:

SIR: We have the honor to submit the third biennial report of this Board for the two years ending June 30, 1896.

The report made to us under this date by the Superintendent, which is forwarded herewith, sets forth fully the matters of chief interest in the history and condition of the school. We indorse the recommendations therein contained looking toward the better equipment of the institution.

We estimate the per capita cost of support of children to be \$23 per month, divided as follows:

Clothing	\$2 50
Salaries	8 50
Provisions	5 50
Materials used in shops	1 50
Table linen and dishes	1 50
School books and appliances	50
Fuel, light, and power	2 00
Incidentals, medicines, etc.	1 00
Total	\$23 00

We would like to emphasize a recommendation made by our predecessors, that an additional one hundred acres of land be purchased. This additional acreage would not only add to the efficiency of the work attempted, by giving employment in a greater variety of agricultural lines, but it would contribute no small amount toward lessening the amount of expenditure for maintenance. With sufficient land, all vegetables, hay, and grain might be produced, whereas now a large quantity must be purchased.

Brick-making has been successfully tried in the last few months, and we find that excellent brick can be made from the clay on our own grounds, at a cost not to exceed \$3 per thousand.

A contemplated addition to the Trades School building, to cost not to exceed \$30,000, is to be built of brick made by the boys of the school. It is proposed in this building to better accommodate the trades already taught, and to add to them a plumbing and tin shop, a cannery, a

machine shop and a small foundry, a Sloyd room for the small boys, and a well-equipped gymnasium.

It seems a misfortune that, owing to the crowded condition of the institution, boys committed here have to be in county jails from one to five weeks before they can be received. An additional double cottage, to cost about \$12,000, built to accommodate two companies of small boys, is very desirable.

For the better care of the sick and their more complete separation from those who are well, a separate hospital building is badly needed. This, together with a Superintendent's residence, which is also a necessity, can be built for \$12,000.

With the increase of land, the herd of cattle should be increased by at least twenty high-grade milch cows.

Thanking you for your manifest interest in the work of this institution, we are,

Very respectfully,

ANDREW MULLEN,
President,

W. C. PATTERSON,
ADINA MITCHELL,

Board of Trustees, Whittier State School.

REPORT OF SUPERINTENDENT.

To the Honorable the Board of Trustees of the Whittier State School:

Herewith please accept my report for the two years ending June 30, 1896.

This date marks the fifth anniversary of the opening of the school. During the five years of its existence, we have received into the school 888 boys and 181 girls. Financial and statistical tables, showing movement of population, age, cause of commitment, nativity of pupils, nativity of parents, schooling, parentage, etc., for each fiscal year, and one set of tables for the entire life of the school, are herewith presented, and I respectfully refer you to them, believing that you will there find information that will be of great service to you in estimating the work already done, and in formulating plans for the future improvement of the school.

I would call your attention to the desirability of a good compulsory education law. Lack of education on the right lines, and want of the care and training which are received by regular attendance at school, are prolific causes of many boys and girls starting on the wrong road. Allowed to spend their time on the streets when they should be in school, allowed to spend hours with vicious and depraved companions—with no one to guard them or warn them of the dangers they are sure to encounter—is it surprising that so many of our boys and girls become the wards of the State? The educational history of the 1,069 children so far received at Whittier (see Table No. 11, p. 58) shows that the average time spent by them in school before coming here is 4.19 school years of nine months each. Over 16% of the 1,069, or 172, have attended school one year or less; 867, or 80.54%, have attended school not more than six years, and 78 have never attended school. Only 28 have attended school more than eight years. Many of our boys have been tramps, and have spent years wandering from place to place with older and depraved companions, acquiring habits and vices the most vicious and degrading known to man: habits and vices which can only be overcome, if at all, with the utmost difficulty.

These facts lead me to the opinion that if our legislators would enact, and the authorities enforce, a carefully drawn compulsory education law, accompanied by the establishment of truant schools (which need not add to the expense of our public school system) such as exist in

other States, the commitment of children to our State schools would be decreased by a very large percentage. In this connection, allow me to call your attention to Table No. 10, showing parentage of pupils, which, for your convenience, I here reproduce:

Parentage of Pupils.

	Number.	Per Cent.
Pupils whose parents were separated when committed to school . . .	212	19.85
Pupils whose parents were deceased when committed to school . . .	94	8.79
Pupils whose fathers were deceased when committed to school . . .	203	18.98
Pupils whose mothers were deceased when committed to school . . .	108	10.10
Pupils who know nothing of their parents	48	4.49
Pupils whose parents were living together when committed to school	404	37.79
Totals	1,069	100.00

This table speaks more emphatically than pages of argument. A glance will show that home influence and proper parental love and guidance have been foreign to the lives of a great majority of our children, and no reasonable person can, after knowing the facts shown by this little table, say that the State is doing too much for these children. It is giving to the greater number of them the sole opportunity for equipping themselves for an equal chance with others that has ever been theirs to profit by, and they, if any, are certainly entitled to the best and most practical education that California (the only parent that most of them have known as a benefactor) can give.

I would also urge the appointment of agents to represent the school in the different counties of the State. When application is made for the commitment to the school of a child under Section 20, as incorrigible or dependent, the county official to whom the application is made would immediately notify our agent, whose duty it would be to make a thorough investigation of the case and report to the court as to whether the commitment should be made or not. In many cases of arrest of children for misdemeanors or felonies, the county agent could, by investigation, supply the court and the school with information regarding environment, family, and history in general of the child and its ancestors that would be of great value. In commitments for whatever cause, our agent would be the guardian of the child from the time of arrest or commitment until it is received into the school. It would be his duty to prevent long periods of confinement in the jails, both before and after commitment.

We are sure that the probabilities and even the possibilities of reformation are greatly lessened by the detention of a child in a jail, where he is almost necessarily associated with those steeped in crime. The result is, in many cases, the ruin of the child, and in all cases the tendency is

to degrade and harden. Twenty-four hours or less in a jail breaks down whatever barriers may exist between the child and a criminal. However innocent he may be, once in a jail, he is placed, in his own mind at least, in the criminal class.

In this connection I would call attention to the importance of the school securing transcripts of testimony submitted to the court at the time of the child's commitment, and which could be obtained by the county agent. It is evident that in the reforming of a pupil all possible information about his life, antecedents, and environment generally should be at the command of the school; and certainly a very important part of this information is often contained in the testimony taken at the hearing of the case by the committing magistrate.

As it is now, we are forced to depend largely upon the newspaper reports of the case, often very meager and generally more or less inaccurate, and we are obliged to begin our treatment of the child with but a very limited knowledge of the special circumstances in his case. A careful record is kept of each pupil's antecedents (so far as we have been able to obtain them), life history, and record while at the school. This work has already proved invaluable in many ways. The success that has followed our efforts in this direction justifies us in determining to give more time and talent to it in future. (Appended, see plan of work, subject, of course, to change.)

As you know, the pupils are divided into companies of about 50 each, arranged with a view to keeping the different classes (marked by age, criminal tendencies, etc.) as nearly separate as possible. Unfortunately, however, we have but one cottage. In this the smallest boys are now living in a family by themselves.

In providing for enlarged accommodations in the future, for both the boys' and the girls' department, I would strongly urge that it be done by the following out of the cottage plan that has proven so beneficial wherever it has been tried. By that means the various companies of children can be kept entirely separate and much evil influence and contamination, now unavoidable, prevented. The cost of such cottages would be comparatively small, and the resultant benefit to the children would be inestimable.

The county agent would prevent the sending of feeble-minded or diseased children to the school. These agents would be paid for services actually rendered.

A visiting agent should be employed to look closely after paroled and discharged pupils. The work we can do in the school is only a beginning, and much of it is lost by our not being able to keep in touch with children who have left us. Often a word of advice or encouragement from one connected with the school would prevent a boy or girl from leaving a good position on account of some fancied wrong from the

employer. Positions could be found by this agent for the children going out. In cases of parole, the child, being visited from time to time by an officer of the school, would feel more strongly than he now does that he is still under the authority of the school and that he will be promptly recalled for any violations of the conditions of his parole. The parent, guardian, or employer would also feel that the child had in the State a powerful friend, jealous of his rights.

Under the present law, a girl is subject to commitment between the ages of 8 and 18, but must be discharged at 18, though she may be 17 years and 11 months old at the time of commitment. I would urge that the law be amended so that the commitment would read "until they are 21 years of age," for surely girls of 18 need direction and guidance more, perhaps, than at any other period of their life. They certainly need to be protected as carefully and for as long a period as the boys. To send them adrift when they should be farthest removed from temptation, in many cases, can only be productive of bad results. It is certainly a waste of time and money for us to receive girls 17 or over and be compelled to release them entirely from the school's control when they have been here less than one year. The coming Legislature will undoubtedly correct this error in the law, if its attention is called to it. The intention of the framers of the law was that all commitments should be until the child reaches the age of 21 years, but, through some oversight or clerical error, the law leaves the time for which a child may be committed under Section 20 to the discretion of the committing magistrate. This can also probably be easily corrected at the coming session of the Legislature.

TRADES SCHOOL.

The facilities we offer to our pupils for learning trades are far below the standard of excellence they should possess. Our trades school should be the heart of our work. Our shops should be thoroughly equipped with the best modern appliances. When a boy expresses a desire to learn the trade of carpenter, and we place him in our carpenter shop, he is thoroughly imbued with the idea that the opportunity for learning well the trade is his to profit by. If we place in his hands antiquated and worn-out tools to work with, are we not deceiving him? He goes out into the world buoyant with hope, believing himself to be a carpenter, and so represents himself when seeking employment. He is given work to do, but discovers that he is ignorant of the uses for which the modern tools placed in his hands are intended. His work, compared with that of his associate workmen, is crude. He is then for the first time aware that he is not what we allowed him to think he was. Discouragement and often recklessness naturally follow.

Some of our shops are doing good work, but there is room for great improvement in the mechanical furnishings of almost all of them. In addition to the vocations already represented, viz.: tailoring, printing, carpentering, electrical engineering, laundering, blacksmithing, house, sign, and carriage painting, baking, brick-making, gardening, and farming, we need and ought to have tinning and plumbing, pattern and machine shops, which, together with a small foundry, would certainly give us a trades school the State would be proud of; one that would graduate skilled mechanics for whom employment would always be waiting.

In this day and age of great industrial competition, skill is a requirement for success in every walk of life, and only those can hope to succeed who combine with proper moral principles a thorough knowledge of the trades or professions they purpose following in life.

It is necessary, therefore, that the school should be thoroughly and completely equipped with the best and most improved machinery and appliances, in all the branches that it contemplates teaching, in order that when the pupil leaves the school he should go forth theoretically and practically an expert in his chosen calling. But more important even than the physical skill and mental development to be derived from the acquirement of a trade are the knowledge and industrious habits thus gained as the *morale* of the child.

"Idleness is the parent of vice," and no one realizes this more thoroughly than those whose duty it is to endeavor to reform youth of a class which, in many cases, is far more familiar with vice than with virtue, and with whom the mind has been allowed to drift into wrong channels because of a lack of sound and proper occupation.

It is the boys who have spent their lives loafing in large cities, or tramping over the country with vicious companions, who are the most difficult to reach, and the reformation must be commenced by keeping their minds so busily centered on active and healthy occupation that they have no time for vicious thoughts or improper desires. The more industrious we can make our boys and girls, the better results, of final reformation, we can achieve with them, and, even from a mercenary standpoint, the less expense they will be to the State, when they leave the school. The present industrial facilities and trades department are entirely inadequate for the number of pupils, especially in the boys' department.

The necessary trades buildings can be erected at small cost. By utilizing the labor of the boys in brick-making, carpentering, etc., the principal cost to the State would be the raw building material, purchase of machinery, etc. In view of the immense good to be accomplished by enlarged industrial facilities, such improvement should not be delayed a day longer than necessary.

In connection with this subject, the question of securing more land for the use of the school may be appropriately considered, both from the standpoint of affording more outdoor occupation for the boys and of economy. Our orchards are in a flourishing condition. They will, during the coming year, supply us with more than double the amount of fresh and canned fruit the school will need for its consumption. With a small cannery, we can, in addition to supplying our own demand for canned and dried fruits, jellies, jams, marmalades, etc., supply one or more State institutions, or if such arrangement for disposing of the overproduction to the State cannot be made, we can readily find a market for it elsewhere. Our blackberry bushes last year yielded to us 38,000 boxes of berries. This year the crop exceeded 40,000 boxes. Six hundred gallons of berries were preserved by our Girls' Department, and 3,100 gallons were canned in the Whittier cannery; we paying the cannery \$1 50 per dozen gallon cans, they furnishing cans and filling them with fruit furnished by the school.

We need additional land for vegetables. We now raise all vegetables used, but we do not use enough. More vegetables and less meat and bread would be a better diet for our children. To raise the vegetables we use, it is necessary for us to utilize the space between the tree rows. This is not the best vegetable ground, and our trees are now so large that a crop between the rows is matured at considerable expense to the fruit trees.

We need land for hay, grain, and pasturage. I do not think land for these latter purposes can be obtained adjoining the present farm, but it can surely be obtained sufficiently near to be available.

We need a dairy sufficiently large to supply milk and butter in abundance for the institution's needs. With a section of land additional, enough butter and milk can be produced, and enough hay, grain, hogs, beef, cattle, etc., raised to enable the management, through the revenue thus obtained, to materially reduce the per capita expense to the State, and, most important of all, it would enable us to instruct a larger number of boys and girls in the outdoor work of the farm, garden, and orchard. The healthfulness of such employment is a great aid to many who come to us with weak and diseased bodies, and to wean them from a desire for life in the city to a love for the country is a great step toward their final reformation.

WATER-SUPPLY.

About four years ago, five inches of water was purchased from the East Whittier Land and Water Company. At that time this amount supplied all requirements for water. Since that time, however, the orchards have been planted and the Girls' Department has moved to the new buildings erected on the State's land (prior to October 1, 1894, the Girls' Department occupied a rented building and their supply of

water was drawn from another source), so that now at least five inches more of water is an absolute necessity. For this an expenditure of \$5,000 will be necessary.

BRICK.

During the last three months we have been experimenting in brick-making, and have thus employed about 30 boys, with the gratifying result of 250,000 rough and 50,000 hand-pressed brick, that have cost us \$3 per thousand. We believe that the next kiln can be completed at less cost. The same brick bought in the market could not be delivered here for less than \$9 per thousand. Our success in this line will lessen the cost of future buildings.

HOSPITAL.

I would urge upon you the necessity for a detached hospital building. Taking, as we do, children from all points in the State, and from every condition in life, the danger of having imported into our midst diseases of a contagious character is constant. We now have no means of properly isolating or quarantining such cases. In this connection, it would be a great protection to the school to have the proposed county agent furnish with every child committed a certificate setting forth the fact that such child had not been exposed, while in jail or elsewhere, to any contagion for a period of fifteen days prior to his arrival at the school.

While there has been considerable sickness during the two years, it has not often been of a serious nature. There have been but two deaths at the school—one in the Girls' Department, from blood-poisoning, and one in the Boys' Department, where a boy working on the farm suffered sunstroke. This record, considering the large number of children who have been in the school during the two years, many of whom were sent to us in a diseased condition, speaks well for the skill and care of Drs. Cook and Smith, the school physicians. It also demonstrates that the sanitary conditions in and around the school are of the best. Of paroled pupils, two have died from natural causes, and one was shot.

I have already called attention, in my remarks on the importance of having county agents, to the work they could do in preventing the commitment to the school of diseased and feeble-minded children, but the matter is of such importance that it will not be out of the way for me to here refer to it again. Children are sometimes committed to the school who have serious and occasionally incurable diseases, and who are a great charge to the State for medical care alone. In other cases children have diseases which, while curable, require a long time for their eradication, and in still other cases there are constitutional tendencies to physical weakness that need attention and care. With our present hospital accommodations, this special care and treatment is impossible,

and only the exceptional healthfulness of the locality, and the constant care of the physicians, seconded by the watchfulness of the officers, have kept the general health of the school up to the high average that has been attained.

As our numbers increase, the dangers consequent upon present lack of hospital facilities immeasurably increase also. A detached hospital building is one of our greatest and most pressing needs.

I herewith present a report by Dr. Woodward Irwin, on her examination of the eyes of the pupils.

Eyes.—The inspection of the eyes of the pupils of the Whittier State School was inaugurated in April, 1895. The number complaining of eye defects was such that it would have been impossible to send them individually to a specialist, so it was deemed best to employ some one to come to the school, and after an examination of all pupils, give attention to those most in need of help. The examination of the entire school was made, without use of any mydriatic, and included tests of visual acuteness from distant and near points, with the eyes singly and together, tests of the ocular muscles, inspection of the lids, lashes, and conjunctiva, tests of the activity of iris and ciliary muscle, inquiry as to any nervous symptom indicating eye strain, the nature of the difficulty, its bearing on school work, and means of its relief. The purpose of this examination was—

1. To determine the number having defective eyes, in order that such may be seated in good light, and at proper distance from the board;
2. To remove from school those whose defects caused much pain or made constant study injurious;
3. To give the teacher such knowledge of child's eyes as would enable her to intelligently direct him;
4. To secure data for child study which should lead to better lighted and to better ventilated rooms, well-printed text-books, better courses of study, and alternation of school work with manual training.

From the examination, by grades, of the 433 pupils of the two schools, I find a small number, from 30% to 40%, have perfectly normal vision in all respects. Of the 60% to 70% having defective eyes, about 30% have eyes of unequal focus, 45% to 50% show muscular defects, and 60% to 85% complain more or less of pain in head or eyes and blurring of type after prolonged near work.

This condition of eye strain is present in much larger degree in the Girls' Department, and may be due to their less active employments and the greater amount of eye work required of them. Examination also showed that there was room for improvement in seating pupils in school-rooms, and the assigning of employment outside of school, in the trades and shops. After completing the general examination, those cases showing severe defects were taken up. To these I gave a careful exami-

nation, with eyes thoroughly under the influence of a mydriatic. Of the 76 thus examined, 48 were fitted with lenses—boys, 31; girls, 17. While work of this kind has its discouraging feature, owing to carelessness in use of help given, results can be secured sufficient to justify its undertaking. A large per cent of those fitted have reported themselves benefited by use of lenses. A few cases have been brought to my attention by those in charge of boys where better work is done, owing to the better vision which the lenses afford. At last report, only six pair of glasses of the number supplied almost a year ago had entirely disappeared, but only a few pair were worn anything like constantly; others are worn only for close work. I occasionally receive requests from pupils for help for their eyes. However, to make the most success of this work, the examination should be repeated at least yearly, changing such lenses as need it, repairing breaks, and supplying losses and fitting new cases. This, with more effort on the part of those in charge of pupils, to compel the care and use of lenses, would in time do much to prevent the further increase of eye defects of pupils of this school.

GIRLS' DEPARTMENT.

Since the last report the girls have taken possession of their three new buildings. The two large cottages are occupied by separate families. Thus, for the first time we are able to have the better class of girls entirely removed from those whose lack of moral training has been a great menace to those who are younger and more virtuous. These cottages are bright and cheerful throughout, and well adapted to the purpose for which they were intended.

In the Trades building, where the laundry, dressmaking shop, and mending room are located, we hope soon to have a cooking school, in which the pupils may obtain an independent knowledge of good cooking and serving.

We feel that with the limited education the greater number of them have, a great work is accomplished if, when they leave here, they are capable of doing *well*, housework, laundry work, cooking and serving, and can make and mend their own clothes. In short, we are endeavoring to teach them to be good housekeepers.

The work in the tailor shop has been discontinued, for, upon investigation, it was found that the only places where they could find employment at this trade were places where many temptations surrounded them, wages were small, and with their oftentimes weak characters everything would have a tendency to degrade rather than elevate.

At this, as well as at the Boys' Department, is greatly felt the lack of a visiting agent, who will procure suitable homes for the girls when they leave us. The most of the girls lack strength of character, and,

although they leave here filled with good intentions of being womanly and true, if they have not the restraining influence of a good home, they are soon drawn down, down to the old life of sin. They must be carefully led as little children, for in childhood they have never had such care, so now they have a twofold need of it. Homes where people will give this care to them are hard to find, and an agent whose duty it was to find such places would greatly facilitate the success of the work.

The girls have taken great interest in the planting of flowers and shrubs about their building and have assisted in the garden work. If they could be taught floriculture, it would be a very profitable employment for them. The great difficulty is to find a woman who would instruct them in this branch. They have also taken much interest in the raising of chickens and poultry.

Last winter, under the direction of their officers, they manifested great interest in their outdoor games of basket ball, tennis, etc., and we find that such exercise has a very wholesome effect upon them. We hope that a good gymnasium may be theirs in the near future, as it would be a great help to them. The lack is also felt here of good reading; many of the few books they have had are wearing out, and a loud cry for new ones is heard.

Let us keep them busy during recreation hours with interesting games, gymnasium exercise, and choice reading suited to them, and we will see, as a result, healthier girls, with minds filled with new and better thoughts, instead of girls without energy and minds containing and imparting thoughts which should not be theirs.

A great deal of good could be done in securing proper homes for the girls, and in making their reform permanent, if some of the splendid organizations of women, which are so numerous throughout the State, would interest themselves in the matter and would communicate with the school whenever they hear of an opportunity for securing a good home for one of the girls, where she would be surrounded by proper influences and made comfortable and happy in the living of a correct life.

DISCIPLINE AND RECREATION.

Besides the manual training, the military system prevailing at the school has been found very useful in maintaining discipline, in giving the boys increased exercise and recreation, in encouraging good behavior, and in offering the boys an incentive to so conduct themselves that they may attain to the various minor offices open to them. Through the kindness of his Excellency, Governor Budd, a number of rifles, formerly the property of the National Guard, have been placed at the service of the school. If a sufficient number could be obtained to enable all the larger boys to learn the manual of arms, it would undoubtedly prove very beneficial.

Great interest has been taken by the boys in football, baseball, and other healthy games—an interest which has proven alike beneficial to their moral and physical advancement.

The library has afforded great pleasure and profit to a large percentage of the pupils. A careful record has been kept of the books each boy has called for, and thus his mental bent and intellectual progress have been to some extent indicated. The number of books, however, is too small by far; and as they have all been donated by friends of the school, there are many books wanting which every boy's library should possess. It is to be hoped that we shall be able to spend some amount of money next year on this very important department of our school.

The annual encampment of the pupils at Catalina Island, where ample camping-grounds are yearly placed at the service of the school through the kindness of the Messrs. Banning, has been one of the features of the school life that has at once been very beneficial to the pupils, and is unique in the history of schools of this character. The boys and girls are taken to the island and returned home without difficulty, although the trip involves a journey by both rail and steamboat. This sojourn of several weeks on the island is a genuine vacation to the pupils, which they greatly enjoy and appreciate. The Southern Pacific Railroad and Messrs. Banning have always furnished the transportation to the island and return for the entire school and supplies, without charge to the State.

"The Whittier," the monthly issued here, has each year contained a number of interesting papers written by the children on their Catalina experiences, which have attracted much attention to the encampment.

PAROLE SYSTEM.

The parole law passed by the Legislature of 1893 has proven most satisfactory in its effects. Under its wise provisions, children may be released before the expiration of the full time for which they are committed, provided that, by good conduct and satisfactory advancement, they have, in the judgment of the Trustees and Superintendent, merited such favor, and a suitable home with proper employment can be found for them. During the past two years 157 children have been paroled, about 80% of whom have done reasonably well; 65% have made a very satisfactory record, many of them filling positions of trust and responsibility. The fact that, while on parole, they are still under the control of the school has a salutary effect upon them, in maintaining their positions with credit to themselves and the institution.

In this connection I would call the attention of your honorable Board to the importance of devising some means by which the school will not be obliged to accept children obviously not suited for commitment to its charge. Strange as it may seem, parents sometimes seek to have their

children sent to the school simply to rid themselves of the trouble and expense of caring for them. Not only is this an unjust tax on the State, but it is also an injustice to the child. As was well said in a former report by my predecessor, Dr. Lindley:

“While it is the endeavor of the State to make this school thoroughly practical and first class on the lines which it has adopted, yet parents should not forget that there are many bad features to which a child in this school must be subjected. The principal objection is that of being thrown with children and youth who are seriously criminal. The administration does all it can to separate the different classes of children, and to prevent this intermixture of the comparatively good with the dangerously bad, but it is impossible to do this completely, and parents and friends and Judges should always remember these adverse conditions.”

There are, of course, cases—and many of them—where the transfer of guardianship from the parent to the State is of great benefit to the child, as the home influences are bad; and frequently children are paroled to strangers who care for them much better, and give them better moral and intellectual training than they were receiving under the parental roof. It is the object and aim of the school to study out all the particular and peculiar conditions and to give to each individual case the special attention it deserves. It is by this system alone that we can hope to make the school the great success we all desire it to be, and which the citizens of California have a right to expect it will prove.

JNO. E. COFFIN,
Superintendent.

STATISTICAL DEPARTMENT.

C. HETHERINGTON, Statistician.

Work of the Department:—

- A. Collection of information concerning children sent to the school under the following heads:
 - I. General designatory information.
 - II. Past, up to the time of entering school:
 1. Nativity back to grandparents.
 2. Past environment—social conditions and influences under which the child has been placed.
 - Home influences—if any.
 - Personal members:
 - Father: nativity, physical history, occupation, education, habits.
 - Mother: nativity, physical history, occupation, education, habits.
 - Brothers: nativity, physical history, occupation, education, habits.
 - Sisters: nativity, physical history, occupation, education, habits.
 - Family conditions:
 - Home life, permanency.
 - Social—harmony, control.
 - Mode of living.
 - Social standing.
 3. Personal history:
 - (a) Physical;
 - (b) Educational;
 - (c) Personal moral reaction—
 - Toward family, associates, and society;
 - Habits.
 - III. Examination on entering school:
 1. Physical examination—
 - (a) Descriptive examination;
 - (b) Measurements examination;
 - (c) Functional examination;
 2. Intellectual examination;
 3. Moral examination.
 - IV. School life:
 1. Accurate history of labor, industrial and intellectual work done, and the cause of the selection, ability, results;
 2. Attitude morally, industrially, and socially; progress;
 3. All changes physically, mentally, morally, and socially.
 - V. Parole, after leaving school.
- B. Develop methods and devices for the collection of this data.
- C. Arrangement and tabulation of the above, so that—
 - I. Under the head of Past we may see:
 1. The probable organization and tendencies from the information we can collect concerning the family of the child;
 2. The social environment and the family training under which the child has developed;
 3. The personal tendencies and habits.
 - II. Under the head of Examination on entering the school we can get a working basis by finding the boy's—
 1. Physical status—
 - Sensitiveness, vitality, endurance, etc.
 2. Mental status—
 - Capacity, habits, tendencies, etc.
 3. Moral status—
 - Sensitiveness, tendencies, etc.

C. Arrangement and tabulation—*Continued.*

III. Under the head of School life we can—

1. Note any change in the factors observed under the head of examination ;
2. Study the character, disposition, intelligence, and moral impulses while under school discipline ;
3. Study the industrial and social development.

IV. Under the head of Parole we can—

1. Keep track of the boy after leaving the school ;
2. Trace the relation between what we know of the boy and his career after leaving the school.

D. The collation of this data, when collected in large masses, for the purpose of—

1. Showing what influence, large or small, were factors in making these children what they are ;
2. Showing what can be done for the unfortunate, wayward, and criminal children in the way of making them contented, trusted, and industrious citizens by a set environment, discipline, training, and instruction ;
3. Showing how this can be done to the best advantage :
The institutional organization and management ;
The kind of instruction and training best adapted.

E. The collection of information and statistics from other sources for the purpose of comparison, aid in interpreting the problems before us, and for the benefit of the officers of the institution, or others needing this information.

DEPARTMENT OF HISTORY.

A. Society (represented by State officials) and scholars wish to know—

1. The origin, cause, and condition of dependents, defections, and delinquents ;
2. What ought individuals and society to do with these classes?
3. And how do it?

Because, "In every large city there exist throngs of true barbarians—nay savages. They make the bulk of the pauper, beggar, and criminal classes in every country. The total cost of supporting, punishing, and guarding against them constitutes half the charge of all legitimate government. Every assault of savagery upon so complicated and extensive organization costs society an immense sacrifice. There is even a worse consequence. So long as society has this burden upon its shoulders it cannot progress in refinement. It must cling to a large part of its old crudeness, as a protection against its unassimilated membership. It must be perpetually hampered by a heavy coat of mail in consequence of the perpetual dangers that beset it."—*Ward.*

B. From study and experience, officials and scholars have arrived at certain tentative conclusions and opinions concerning the above problems.

C. On these conditions and opinions, political schemes and institutions have been remodeled or newly organized. These at first are experiments. Their success depends upon the results accomplished. These conclusions, schemes, and institutions are growing with repeated trials, and the final judgment will be according to the success and results of the various experiments.

D. State schools and reformatories are still in the experimental stage. Whittier State School is organized with a Department of History and Statistics.

The object of work of the Department is to study the subjects of the institution and the influence of the institution upon its subjects for the purpose of—

1. Understanding each individual so as to deal with him intelligently ;
2. Sounding the institutional organization and management from the standpoint of the work it has to perform : its strong points ; its weak points ;
3. The collection of facts and collation of statistics that will aid in solving the problems that come before the officers of the institution, as well as furnishing data for the solution of problems in the general field of work.

FINANCIAL STATEMENTS

AND

STATISTICAL TABLES.

FORTY-SIXTH FISCAL YEAR.

Memorandum.—The Statistical Tables for the forty-sixth fiscal year contain the 102 pupils on furlough, who, with the 400 present on June 30, 1895, make a total of 502 pupils.

FINANCIAL REPORT.

TABLE No. 1.

Financial Condition June 30, 1895.

GENERAL FUND.

Balance in General Fund July 1, 1894	\$227 64
Amount of appropriation for maintenance for the forty-sixth fiscal year	80,000 00

WHITTIER REFORM SCHOOL FUND.

(Fund created by Legislature 1893; Stats. 1893, page 334.)

Balance in Whittier Reform School Fund July 1, 1894		17,812 89
Amount paid into State Treasury by counties for their proportion of expense of pupils—		
Alameda	\$4,340 41	
Butte	484 00	
Colusa	427 89	
El Dorado	144 30	
Fresno	4,943 88	
Kings	231 15	
Lake	139 14	
Los Angeles	6,003 73	
Madera	263 30	
Merced	300 87	
Monterey	786 07	
Napa	593 51	
Nevada	554 51	
Orange	779 48	
Placer	345 00	
Riverside	1,270 18	
Sacramento	2,876 40	
San Bernardino	6,408 70	
San Diego	2,563 76	
San Francisco	17,389 81	
San Joaquin	564 20	
San Mateo	125 00	
Santa Barbara	1,275 08	
Santa Cruz	835 55	
Santa Clara	2,012 38	
Solano	255 10	
Sonoma	872 26	
Ventura	871 96	
Yolo	600 00	
Yuba	46 70	
		58,304 32
Amount due from counties—		
Alameda	\$1,023 77	
Butte	77 00	
Colusa	300 00	
Contra Costa	159 43	
El Dorado	134 20	
Fresno	165 97	
Humboldt	438 68	
Kings	62 50	
Lake	37 50	
Amounts carried forward	\$2,399 05	\$156,344 85

Amounts brought forward	\$2,399 05	\$156,344 85
Los Angeles	17,833 62	
Madera	75 00	
Marin	135 80	
Mariposa	203 61	
Mendocino	1,404 78	
Merced	125 00	
Monterey	187 50	
Napa	187 50	
Nevada	250 00	
Orange	428 10	
Placer	581 13	
Riverside	200 00	
Sacramento	147 34	
San Benito	125 30	
San Bernardino	856 80	
San Diego	561 17	
San Francisco	12,936 64	
San Joaquin	143 76	
San Luis Obispo	2,009 08	
San Mateo	100 00	
Santa Barbara	1,286 80	
Santa Cruz	250 00	
Santa Clara	552 05	
Solano	70 80	
Sonoma	168 11	
Stanislaus	12 50	
Tulare	1,457 10	
Ventura	54 92	
Yolo	100 00	
		44,843 46

CONTINGENT FUND.

Amount in hands of Treasurer July 1, 1894		2 64
Amount placed in hands of Treasurer from July 1, 1894, to June 29, 1895	\$1,784 73	
Cash on hand	271 25	
(Derived from paying boarders, sale of farm products and swill, and for work performed in shops.)		2,055 98
Amount due from paying boarders		641 80
Amount due from sundry debtors for sale of products and work performed in shops		315 80

DEFICIENCY FUND.

Balance in deficiency fund July 1, 1894 ("An Act making an appropriation to pay the deficiency in the appropriation for support of juvenile offenders at Whittier for the forty-third and forty-fourth fiscal years," approved March 23, 1893)		64 10
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DEFICIENCY.

Amount of deficiency granted May 4, 1891, by State Board of Examiners to incur indebtedness for architect's fees	2,375 00
	\$206,643 63

CONTRA.

Amount drawn from General Fund	\$78,321 92
Unpaid claims incurred to be drawn from General Fund	1,905 72
Amount drawn from Whittier Reform School Fund	37,224 12
Unpaid claims incurred to be drawn from Whittier Reform School Fund	22,038 79
Amount drawn from Contingent Fund	1,045 36
Unpaid claims incurred to be drawn from Contingent Fund	177 70
Claim of R. B. Young incurred under deficiency granted by State Board of Examiners May 4, 1891, paid by State Controller March 30, 1894, under Act of Legislature	2,375 00
Unpaid claims in suspense	38 19
Amount due paying boarders	21 65
	\$143,148 45
Total amount available assets	\$63,495 18

Balance Whittier Reform School Fund	\$16,854 30	
Balance owing by counties	44,843 46	
Balance in hands of Treasurer	742 01	
Balance cash	271 25	
Balance owing by paying boarders	641 80	
Balance owing by sundry debtors	315 80	
Balance Deficiency Fund	64 10	
		\$63,732 72
Less—		
Amount due sundry creditors in suspense	\$38 19	
Amount unpaid claims to be drawn against Contingent Fund	177 70	
Amount due to paying boarders	21 65	
		237 54
		\$63,495 18

TABLE No. 2.

Condition of Special Appropriations June 30, 1895.

Amount of appropriation for additional improvements ("An Act to provide for additional improvements at the Reform School for Juvenile Offenders, located at Whittier, in the County of Los Angeles, and State of California, and to make an appropriation for the same," approved March 23, 1893; Stats. 1893, page 296)	\$100,000 00
Amount drawn to June 30, 1895	\$92,833 00
Amount, or 10%, held by Controller on contracts	2,966 92
Claims incurred and unpaid, May and June bills	1,411 75
	97,211 67
Expended as follows:	
Shelter buildings	\$973 53
Water, distributing same	9,112 64
Fruit trees, planting lands	2,961 15
Buildings—Girls' Department, Commissary Building, cow and hay barn	83,166 66
Books, current periodicals	997 69
	\$97,211 67
Balance	\$2,788 33
"An Act to provide for the improvement of the Reform School at Whittier, California, for Juvenile Offenders, and make an appropriation for the same," approved April 6, 1891.	
Balance of appropriation for water pipe-lines and construction of reservoir, July 1, 1894	\$55 00
Amount drawn to June 30, 1895	37 74
Balance	\$17 26

TABLE No. 3.

Abstract of Expenses Forty-sixth Fiscal Year, ending June 30, 1895.

Office Department	\$823 64
Engine-Room and Electrical Department	5,530 94
Hospital	604 46
Butcher Department	4 23
Laundry Department	208 84
Band Department	21 35
Library Department	24 86
School Department	722 55
Housekeeper Department	728 70
Dressmaker Department	85 92
Commissary Department	4 36
Live-Stock Department	527 34
Freight	2,620 48
Boys' Department	41,488 90
Girls' Department	7,258 83
Officers' Department	8,553 41
Salaries	52,556 00
Discharged pupils	1,181 30
Services of special officers	711 60
General expenses	2,726 02
	\$126,383 73

Amount brought forward	\$126,383 73
Less receipts over issues from following departments:	
Bakery Department	\$4,160 96
Printer Department	79 03
Garden Department	656 59
Shoeshop Department	1,004 52
Blacksmith Department	1,067 47
Farm Department	4,128 97
Tailor Department	2,726 66
Carpenter Department	39 22
Painter Department	832 71
Miscellaneous	141 48
	<hr/> 14,837 61
Net cost of maintenance	\$111,546 12
Daily average attendance of pupils	399.66
Cost of maintenance per diem per capita	\$0 765
Cost of maintenance per capita per month	\$22 95

TABLE No. 4.

Assets and Liabilities July 1, 1895.

AVAILABLE ASSETS.

Cash on hand	\$1,013 26
Cash balance State Treasury (General Fund)	1,905 72
Cash balance State Treasury (Deficiency Fund)	64 10
Cash balance State Treasury (Whittier Reform School Fund)	38,893 09
Cash balance State Treasury (Additional Improvements Fund)	7,167 00
Cash balance State Treasury (Water Pipe-Lines and Construction of Reservoir Fund)	17 26
Due from sundry debtors	315 80
Due from counties	44,843 46
Due from paying boarders	641 80
	<hr/> \$94,861 49

PERMANENT ASSETS.

Real estate and improvements	\$289,243 00
Machinery and electric plant	34,812 00
Furniture	22,059 80
Trades tools	5,266 33
Farm and garden tools	926 70
Live stock	4,701 65
Vehicles	1,116 00
Harness	282 50
Band instruments	430 75
Library (books)	856 44
School Department (school books, etc.)	954 30
Garden (hothouse plants, etc.)	602 95
Engine-Room and Electrical Department	444 53
Printer Department	193 28
Shoeshop Department	247 27
Painter Department	521 86
Blacksmith Department	179 56
Tailor Department	323 00
Carpenter Department	124 20
Merchandise (stock in Commissary)	4,851 59
	<hr/> 368,167 71
Total assets	\$463,029 20

LIABILITIES.

Unpaid claims and salaries, May and June, 1895	\$28,539 07
Amount due to paying boarders	21 65
	<hr/> 28,560 72
Excess of assets	\$434,468 48

STATISTICS.

TABLE No. 1.

Number of Pupils Admitted and Dismissed from July 1, 1891, to June 30, 1895.

	1891-1892.			1892-1893.			1893-1894.			1894-1895.			Total.		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
Number admitted by commitment	253	58	311	202	39	241	180	33	213	128	24	152	763	154	917
Number returned from parole *	0	0	0	4	3	7	48	8	56	59	8	67	111	19	130
Number returned escapes	0	0	0	1	0	1	1	0	1	3	0	3	5	0	5
Totals	253	58	311	207	42	249	229	41	270	190	32	222	879	173	1,052
Number dismissed expiration of term	3	0	3	39	8	47	120	32	152	117	28	145	279	68	347
Number paroled	0	1	1	41	11	52	99	10	109	61	9	70	201	31	232
Number escaped	4	0	4	6	0	6	5	0	5	9	0	9	24	0	24
Number died	1	0	1	1	0	1	1	1	1	1	1	2	3	2	5
Number dismissed by Trustees	0	1	1	9	4	13	2	1	3	1	0	1	12	6	18
Number dismissed by order of Court	0	1	1	0	0	0	0	0	0	3	0	3	3	1	4
Number adjudged insane, committed to asylum	1	0	1	0	1	1	0	0	0	0	0	0	1	1	2
Number pardoned by Governor	0	0	0	13	6	19	1	0	1	0	0	0	14	6	20
Totals	9	3	12	109	30	139	227	44	271	192	38	230	537	115	652

Males. Females. Total.

Total number present June 30, 1895

Total number on parole June 30, 1895

Total number under jurisdiction of school June 30, 1895

* The terms of commitment of nearly all these pupils have expired and they are marked "Returned from Parole" in order to be honorably dismissed from this school.

TABLE No. 2.

Recapitulation of Pupils Admitted and Dismissed from July 1, 1894, to June 30, 1895.

Month of—	Admitted.						Dismissed.																
	By Com- municant.		Captured.		Return Paroles.		Total.		Expiration of Term.		Escaped.		Died.		Paroled.		By Trus- tees.		By Order of Court.		Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.		
1894—July	7	2	9	0	0	0	11	3	14	9	12	0	0	0	0	4	0	0	0	0	13	3	
August	15	2	17	1	0	5	21	2	23	11	13	0	0	0	0	7	1	8	0	0	18	3	
September	7	4	11	0	0	5	12	6	18	17	5	1	0	0	0	7	2	9	0	0	15	7	
October	10	0	10	0	0	4	1	1	15	11	1	12	0	0	0	4	0	4	0	0	1	17	1
November	10	1	11	0	0	7	16	1	18	10	2	12	0	0	0	0	3	0	0	0	13	2	
December	11	3	14	0	0	5	2	7	21	13	3	16	1	0	1	4	0	4	0	0	1	19	4
1895—January	6	2	8	0	0	8	1	9	14	11	0	11	0	0	0	6	4	10	0	0	17	4	
February	11	1	12	0	0	5	0	5	16	1	6	2	0	0	0	4	0	4	0	0	11	2	
March	14	2	16	1	0	5	0	5	20	13	16	0	0	1	0	7	0	7	0	0	21	3	
April	20	2	22	0	0	3	23	2	25	13	2	15	3	0	3	6	1	7	0	0	23	3	
May	8	2	10	0	0	5	13	2	15	6	3	9	2	0	2	0	0	0	0	0	10	4	
June	9	3	12	1	0	3	1	4	13	7	2	9	0	0	0	7	0	7	1	0	16	2	
Totals	128	24	152	3	0	3	59	8	67	117	28	145	9	0	9	1	61	9	70	1	3	192	38
																						230	

Total Number Remaining at End of Month.

Month of—	Males.		Females.		Total.		Month of—		Males.		Females.		Total.	
	M.	F.	M.	F.	M.	F.			M.	F.	M.	F.	M.	F.
1894—July	342	64	406	1895—January	337	61	398	398	337	61	398	398	337	61
August	345	63	408	February	342	60	402	402	342	60	402	402	342	60
September	342	62	404	March	341	59	399	399	341	59	399	399	341	59
October	339	62	401	April	342	58	400	400	342	58	400	400	342	58
November	343	61	404	May	345	56	401	401	345	56	401	401	345	56
December	340	62	402	June	342	400	398	398	342	400	398	398	342	400

TABLE No. 3.

Nativity of Pupils.

	Males.	Females.	Total.	Per Cent.
<i>United States.</i>				
Alabama	1	0	1	.20
Arizona	4	2	6	1.19
Arkansas	3	1	4	.79
California	234	36	270	53.78
Colorado	3	0	3	.60
Dakota	1	0	1	.20
Florida	0	1	1	.20
Idaho	2	1	3	.60
Illinois	19	4	23	4.59
Iowa	10	2	12	2.39
Indiana	5	0	5	.99
Kansas	13	3	16	3.19
Kentucky	1	0	1	.20
Louisiana	1	0	1	.20
Maine	1	0	1	.20
Maryland	3	0	3	.60
Massachusetts	4	0	4	.79
Michigan	4	1	5	.99
Minnesota	5	0	5	.99
Missouri	20	0	20	3.99
Nebraska	5	1	6	1.20
Nevada	4	0	4	.79
New Hampshire	3	0	3	.60
New York	10	2	12	2.39
North Carolina	2	1	3	.60
Ohio	2	2	4	.79
Oregon	3	0	3	.60
Pennsylvania	2	0	2	.40
Tennessee	2	0	2	.40
Texas	11	0	11	2.19
Utah	1	0	1	.20
Virginia	1	0	1	.20
Washington	1	0	1	.20
Wisconsin	5	1	6	1.20
Unknown	10	7	17	3.39
Totals	396	65	461	91.83
<i>Foreign.</i>				
Canada	5	1	6	1.20
Chile	1	1	2	.40
England	4	0	4	.79
France	2	1	3	.69
Germany	2	0	2	.40
Ireland	2	0	2	.40
Italy	4	0	4	.79
Mexico	7	0	7	1.40
Norway	1	0	1	.20
Portugal	2	0	2	.40
Russia	1	0	1	.20
Scotland	4	0	4	.79
Spain	1	1	2	.40
Sweden	0	1	1	.20
Totals	36	5	41	8.17
<i>Recapitulation.</i>				
United States	396	65	461	91.83
Foreign	36	5	41	8.17
Totals	432	70	502	100.00

TABLE No. 4.

Nativity of Fathers of Pupils.

	Males.	Females.	Total.	Per Cent.
<i>United States.</i>				
Alabama.....	1	0	1	.20
Arkansas.....	3	0	3	.60
California.....	40	3	43	8.57
Colorado.....	1	0	1	.20
Connecticut.....	1	2	3	.60
Dakota.....	1	0	1	.20
Florida.....	1	0	1	.20
Georgia.....	1	1	2	.40
Idaho.....	3	0	3	.60
Illinois.....	16	2	18	3.59
Indiana.....	9	0	9	1.79
Iowa.....	8	0	8	1.59
Kansas.....	2	1	3	.60
Kentucky.....	9	0	9	1.79
Louisiana.....	2	0	2	.40
Maine.....	5	2	7	1.39
Maryland.....	3	0	3	.60
Massachusetts.....	6	0	6	1.19
Michigan.....	3	0	3	.60
Minnesota.....	1	0	1	.20
Mississippi.....	1	0	1	.20
Missouri.....	21	3	24	4.78
Nebraska.....	2	0	2	.40
New Hampshire.....	1	1	2	.40
New Jersey.....	2	0	2	.40
New York.....	32	2	34	6.77
North Carolina.....	0	2	2	.40
Ohio.....	13	5	18	3.59
Pennsylvania.....	6	1	7	1.39
Tennessee.....	6	1	7	1.39
Texas.....	6	2	8	1.59
Utah.....	1	0	1	.20
Virginia.....	5	0	5	.99
Washington.....	1	0	1	.20
Wisconsin.....	5	1	6	1.19
Unknown.....	37	10	47	9.36
Totals.....	255	39	294	58.56
<i>Foreign.</i>				
Australia.....	0	1	1	.20
Austria-Hungary.....	1	0	1	.20
Belgium.....	1	0	1	.20
Canada.....	11	1	12	2.39
Chile.....	3	0	3	.60
England.....	23	8	31	6.18
France.....	8	4	12	2.39
Germany.....	31	4	35	6.98
Ireland.....	40	6	46	9.17
Italy.....	9	1	10	2.00
Mexico.....	14	2	16	3.19
Norway.....	1	0	1	.20
Panama.....	1	0	1	.20
Poland.....	1	0	1	.20
Portugal.....	5	0	5	.99
Russia.....	4	0	4	.79
Scotland.....	11	1	12	2.39
Spain.....	1	0	1	.20
Sweden.....	3	1	4	.79
Switzerland.....	1	0	1	.20
Wales.....	3	1	4	.79
Unknown.....	5	1	6	1.19
Totals.....	177	31	208	41.44
<i>Recapitulation.</i>				
United States.....	255	39	294	58.56
Foreign.....	177	31	208	41.44
Totals.....	432	70	502	100.00

TABLE No. 5.
Nativity of Mothers of Pupils.

	Males.	Females.	Totals.	Per Cent.
<i>United States.</i>				
Alabama	1	0	1	.20
Arizona	1	0	1	.20
Arkansas	3	2	5	.99
California	68	14	82	16.33
Connecticut	1	0	1	.20
Florida	1	1	2	.40
Georgia	4	0	4	.79
Idaho	0	1	1	.20
Illinois	19	2	21	4.18
Indiana	10	1	11	2.19
Iowa	9	2	11	2.19
Kansas	2	1	3	.60
Kentucky	7	0	7	1.40
Louisiana	6	0	6	1.20
Maine	2	0	2	.40
Massachusetts	8	2	10	2.00
Maryland	2	1	3	.60
Michigan	3	0	3	.60
Mississippi	2	0	2	.40
Missouri	24	2	26	5.18
Montana	0	1	1	.20
Nebraska	2	0	2	.40
New York	25	1	26	5.18
Nevada	1	0	1	.20
New Mexico	1	0	1	.20
New Jersey	1	1	2	.40
North Carolina	2	2	4	.79
Ohio	14	1	15	2.98
Oregon	2	0	2	.40
Pennsylvania	3	1	4	.79
Rhode Island	2	0	2	.40
Tennessee	9	0	9	1.79
Texas	5	1	6	1.20
Utah	1	1	2	.40
Virginia	5	0	5	.99
Washington	2	0	2	.40
Wisconsin	4	0	4	.79
Unknown	31	9	40	7.97
Totals	283	47	330	65.73
<i>Foreign.</i>				
Australia	1	0	1	.20
Belgium	2	0	2	.40
Canada	8	2	10	2.00
England	9	4	13	2.58
France	5	1	6	1.20
Germany	23	3	26	5.18
Ireland	42	7	49	9.76
Italy	6	1	7	1.40
Mexico	16	0	16	3.19
Norway	1	1	2	.40
Poland	1	0	1	.20
Portugal	7	0	7	1.40
Russia	3	0	3	.60
Scotland	12	0	12	2.39
Spain	0	2	2	.40
Sweden	3	1	4	.79
Switzerland	2	0	2	.40
Wales	4	0	4	.79
Unknown	4	1	5	.99
Totals	149	23	172	34.27
<i>Recapitulation.</i>				
United States	283	47	330	65.73
Foreign	149	23	172	34.27
Totals	432	70	502	100.00

TABLE No. 6.

Nativity of Pupils Present.

	Males.	Females.	Total.	Per Cent.
Both parents native born	229	32	261	52.00
One parent native born and one foreign born.....	65	21	86	17.13
Both parents foreign born	138	17	155	30.87
Totals.....	432	70	502	100.00

TABLE No. 7.

Ages of Pupils.

	Males.	Females.	Total.	Per Cent.
Eight years	3	0	3	.60
Nine years	3	0	3	.60
Ten years	6	2	8	1.59
Eleven years	8	1	9	1.79
Twelve years.....	15	3	18	3.59
Thirteen years	37	5	42	8.37
Fourteen years.....	46	8	54	10.75
Fifteen years	70	12	82	16.33
Sixteen years	94	19	113	22.51
Seventeen years.....	79	16	95	18.94
Eighteen years.....	56	4	60	11.95
Nineteen years.....	13	0	13	2.58
Twenty years	2	0	2	.40
Totals.....	432	70	502	100.00

TABLE No. 8.

Terms of Commitment of Pupils.

	Males.	Females.	Total.	Per Cent.
One year	1	0	1	.20
Two years.....	3	1	4	.79
Three years	30	4	34	6.77
Three years and six months	1	0	1	.20
Four years	30	6	36	7.17
Five years	52	6	58	11.56
Seven years	6	0	6	1.19
Indefinite, or until further order of the Court.....	3	1	4	.79
During minority	306	52	358	71.52
Totals.....	432	70	502	100.00

TABLE No. 9.

Causes of Commitment of Pupils.

	Males.	Females.	Total.	Per Cent.
Administering poison with intent to kill	3	0	3	.60
Assault with intent to commit rape.....	2	0	2	.40
Assault	2	0	2	.40
Assault with intent to commit murder	1	0	1	.20
Assault with deadly weapon.....	2	0	2	.40
Attempt to commit grand larceny.....	1	0	1	.20
Attempt to commit robbery	7	0	7	1.40
Battery	2	1	3	.60
Burglary	110	0	110	21.91
Crime against nature	2	0	2	.40
Disturbing the peace.....	2	3	5	.99
Embezzlement.....	1	0	1	.20
Forgery	2	0	2	.40
Furnishing liquor to Indians	1	0	1	.20
Grand larceny.....	19	0	19	3.77
Incorrigible.....	179	54	233	46.41
Leading idle and dissolute life.....	1	0	1	.20
Manslaughter	1	0	1	.20
Obtaining goods under false pretenses	1	0	1	.20
Obtaining and reading sealed letter of another.....	0	1	1	.20
Petit larceny	55	2	57	11.35
Robbery	10	0	10	2.00
Stealing.....	0	1	1	.20
Vagrancy	25	8	33	6.57
Injuring public jail	3	0	3	.60
Totals.....	432	70	502	100.00

TABLE No. 10.

Color of Pupils.

	Males.	Females.	Total.	Per Cent.
White	413	66	479	95.42
Colored	19	4	23	4.58
Totals.....	432	70	502	100.00

TABLE No. 11.

Number of Pupils from Each County.

County.	Males.	Females.	Total.	Per Cent.
Alameda	33	4	37	7.38
Butte	4	0	4	.79
Colusa	4	0	4	.79
Contra Costa	1	0	1	.20
El Dorado	1	1	2	.40
Fresno	14	7	21	4.18
Kings	3	0	3	.60
Kern	1	0	1	.20
Los Angeles	125	17	142	28.29
Lake	1	0	1	.20
Mendocino	6	0	6	1.20
Merced	2	0	2	.40
Monterey	6	0	6	1.20
Madera	2	1	3	.60
Mono	0	1	1	.20
Marin	1	0	1	.20
Napa	6	0	6	1.20
Nevada	3	3	6	1.20
Orange	10	2	12	2.39
Placer	2	2	4	.79
Riverside	7	1	8	1.59
Sacramento	12	7	19	3.77
San Benito	1	0	1	.20
San Bernardino	25	5	30	5.98
San Diego	18	2	20	4.00
San Francisco	68	12	80	15.94
San Joaquin	4	0	4	.79
San Luis Obispo	6	0	6	1.20
San Mateo	1	0	1	.20
Santa Barbara	16	2	18	3.59
Santa Cruz	5	0	5	.99
Santa Clara	18	1	19	3.77
Shasta	1	0	1	.20
Sonoma	9	1	10	2.00
Solano	2	1	3	.60
Tulare	5	0	5	.99
Ventura	5	0	5	.99
Yolo	4	0	4	.79
Totals	432	70	502	100.00

FINANCIAL STATEMENTS

AND

STATISTICAL TABLES.

FORTY-SEVENTH FISCAL YEAR.

Memorandum.—The Statistical Tables for the forty-seventh fiscal year contain the 128 pupils on parole, who, with the 407 present on June 30, 1896, make a total of 535 pupils.

FINANCIAL REPORT.

TABLE No. 1.

Financial Condition June 30, 1896.

GENERAL FUND.

Balance in General Fund July 1, 1895	\$1,905 72
Amount of appropriation for forty-seventh fiscal year.....	100,000 00

WHITTIER REFORM SCHOOL FUND.

(Fund created by Legislature, 1893; Stats. 1893, page 334.)

Balance in Whittier Reform School Fund, July 1, 1895		38,893 09
Amount paid into State Treasury by counties for their proportion of expense of maintenance of pupils committed prior to March 26, 1895—		
Alameda	\$3,706 07	
Butte	202 70	
Colusa	750 00	
Contra Costa	284 43	
El Dorado	246 70	
Fresno	2,061 07	
Kings	187 50	
Lake	162 50	
Los Angeles	4,781 91	
Madera	300 00	
Merced	125 00	
Monterey	625 00	
Napa	324 80	
Nevada	628 69	
Orange	537 50	
Placer	513 20	
Riverside	1,100 00	
Sacramento	1,107 59	
San Benito	125 30	
San Bernardino	1,855 37	
San Diego	1,635 90	
San Francisco	8,900 15	
San Joaquin	580 82	
San Mateo	150 00	
Santa Barbara	2,756 41	
Santa Cruz	812 50	
Santa Clara	1,868 76	
Solano	370 80	
Sonoma	493 10	
Stanislaus	12 50	
Tulare	1,750 66	
Ventura	554 92	
Yolo	584 60	
		40,096 45
Amount due from counties—		
Alameda	\$452 07	
Butte	27 00	
Colusa	150 00	
Contra Costa	25 00	
El Dorado	37 50	
Fresno	249 92	
Humboldt	438 68	
Kings	25 00	
Lake	25 00	
Amounts carried forward	\$1,410 17	\$190,895 26

Amounts brought forward	\$1,410 17	\$190,895 26
Los Angeles	24,026 92	
Madera	75 00	
Marin	285 80	
Mariposa	203 61	
Mendocino	1,978 87	
Merced	243 95	
Monterey	312 50	
Napa	173 98	
Nevada	81 40	
Orange	614 80	
Placer	628 73	
Riverside	175 00	
Sacramento	187 50	
San Bernardino	1,635 35	
San Diego	627 30	
San Francisco	8,526 05	
San Joaquin	87 51	
San Luis Obispo	2,761 03	
Santa Barbara	430 69	
Santa Cruz	187 50	
Santa Clara	300 00	
Solano	150 00	
Sonoma	109 47	
Tulare	191 04	
Ventura	100 00	
Yolo	75 00	
		45,599 17

CONTINGENT FUND.

Amount in hands of Treasurer July 1, 1895	742 01
Amount placed in hands of Treasurer since July 1, 1895	971 20
Cash on hand at institution	75 75
(All of the Contingent Fund is derived from paying boarders, from sales of farm products and swill, and for work performed in shops.)	
Amount due from paying boarders	1,198 60
Amount due from sundry debtors	305 15

DEFICIENCY FUND.

Balance in Deficiency Fund July 1, 1895 ("An Act making an appropriation to pay the deficiency in the appropriation for the support of the Reform School for Juvenile Offenders at Whittier, for the forty-third and forty-fourth fiscal years," approved March 23, 1893)	64 10
	\$229,851 24

CONTRA.

Amount drawn from General Fund	\$83,745 54
Unpaid claims incurred to be drawn from General Fund	18,134 96
Amount drawn from Whittier Reform School Fund	33,588 62
Unpaid claims incurred to be drawn from Whittier Reform School Fund	1,566 03
Amount drawn from Contingent Fund	1,376 45
Unpaid claims incurred to be drawn from Contingent Fund	300 86
Unpaid claims in suspense	70
Amount due paying boarders	9 15
	138,722 31
Total amount available assets	\$91,128 93

Balance General Fund	\$25 22
Balance Whittier Reform School Fund	43,834 89
Balance Contingent Fund (hands of Treasurer)	336 76
Balance cash	75 75
Balance Deficiency Fund	64 10
Owing by paying boarders	1,198 60
Owing by sundry debtors	305 15
Owing by counties	45,599 17
	\$91,439 64
Less—	
Amount due sundry creditors, to be paid out of Contingent Fund	\$300 86
Amount due sundry creditors in suspense	70
Amount due paying boarders	9 15
	310 71
	\$91,128 93

TABLE No. 2.

Condition of Special Appropriations June 30, 1896.

Amount of appropriation for additional improvements. ("An Act to provide for additional improvements at the Reform School for Juvenile Offenders, located at Whittier, in the County of Los Angeles, and State of California, and to make an appropriation for the same," approved March 23, 1893; Stats. 1893, page 296)		\$100,000 00
Amount drawn to June 30, 1896		99,908 89
Expended as follows:		
Shelter buildings	\$973 53	
Water, distributing same	9,112 64	
Fruit trees, planting lands	2,961 15	
Buildings—Girls' Department, Commissary building, cow and hay barn	85,867 20	
Books, current periodicals	994 37	
	<hr/>	
	\$99,908 89	
Balance		<hr/>
		\$91 11
Balance of appropriation for "water pipe-lines and construction of reservoir," July 1, 1896 ("An Act to provide for the improvement of the Reform School at Whittier, California, for Juvenile Offenders, and to make an appropriation for the same," approved April 6, 1891)		\$17 26

TABLE No. 3.

Abstract of Expenses, Forty-seventh Fiscal Year, Ending June 30, 1896.

Office Department	\$933 92	
Engine-Room and Electrical Department	5,344 26	
Hospital	487 99	
Painter Department	487 74	
Butcher Department	6 79	
Laundry Department	461 76	
Shoeshop Department	367 89	
Band Department	45 95	
Library Department	21 96	
School Department	399 33	
Housekeeper Department	512 62	
Dressmaker Department	579 93	
Photo Gallery	352 68	
Freight	1,077 58	
Boys' Department	36,254 67	
Girls' Department	6,068 54	
Officers' Department	7,400 34	
Salaries	51,856 20	
Discharged pupils	739 55	
Services of special officers	415 60	
General expense	2,440 71	
Miscellaneous	29 95	
	<hr/>	
		\$116,285 96
Less receipts over issues from following departments:		
Farm Department	\$3,256 90	
Garden Department	843 37	
Bakery Department	3,360 25	
Blacksmith Department	528 56	
Carpenter Department	37 50	
Tailor Department	1,337 43	
Printer Department	391 16	
Live stock	608 38	
	<hr/>	
		10,363 55
Net cost of maintenance		<hr/>
		\$105,922 41
Daily average attendance of pupils	399.44	
Cost of maintenance per capita per diem	\$0 724	
Cost of maintenance per capita per month	\$21 72	

TABLE No. 4.

Assets and Liabilities July 1, 1896.

AVAILABLE ASSETS.

Cash on hand	\$412 51	
Cash balance State Treasury (General Fund)	18,160 18	
Cash balance State Treasury (Deficiency Fund)	64 10	
Cash balance State Treasury (Whittier Reform School Fund)	45,400 92	
Cash balance State Treasury (Additional Improvements Fund)	91 11	
Cash balance State Treasury (Water Pipe-Lines and Construction of Reservoir Fund)	17 26	
Due from sundry debtors	305 15	
Due from counties	45,599 17	
Due from paying boarders	1,198 60	
		<u>\$111,249 00</u>

PERMANENT ASSETS.

Real estate and improvements	\$289,187 00	
Machinery and electric plant	31,320 80	
Furniture	18,740 85	
Trades tools	5,934 27	
Farm and garden tools	893 80	
Live stock	5,013 00	
Vehicles	962 50	
Harness	260 75	
Band instruments	425 00	
Library (books)	500 00	
School Department (school books, etc.)	946 70	
Garden Department (hothouse plants, etc.)	501 25	
Engine-Room and Electrical Department	309 81	
Printer Department	112 87	
Shoeshop Department	172 17	
Painter Department	411 61	
Blacksmith Department	88 90	
Tailor Department	188 39	
Carpenter Department	90 86	
Laundry Department	57 86	
Brickyard	1,359 00	
Merchandise (Commissary Department)	1,658 77	
		<u>359,136 16</u>
Total assets		<u>\$470,385 16</u>

LIABILITIES.

Unpaid claims and salaries, May and June	\$20,002 55	
Amount due paying boarders	9 15	
		<u>20,011 70</u>
Excess of assets		<u>\$450,373 46</u>

TABLE No. 5.

JUNE 30, 1896.

Statement of moneys paid into General Fund of the State of California, and amounts owing to the State of California, by counties for pupils committed to the Whittier State School since March 26, 1895, in accordance with Act of Legislature, entitled "An Act relating to commitments to Whittier State School," etc., approved March 26, 1895. (Stats. 1895, pp. 122-123.)

No benefit is derived by this school from such payments made by counties under the provisions of this Act.

AMOUNT PAID INTO GENERAL FUND OF THE STATE OF CALIFORNIA

By counties for pupils committed since March 26, 1895.

Alameda	\$887 70
Butte	137 50
El Dorado	9 80
Fresno	395 80
Kings	136 68
Lake	27 70
Los Angeles	4,017 44
Mono	122 75
Napa	47 58
Nevada	114 40
Orange	296 26
Placer	16 65
Riverside	107 77
Sacramento	241 88
San Bernardino	835 76
San Diego	364 10
San Francisco	2,650 39
Santa Barbara	267 79
Santa Clara	753 72
Sonoma	64 99
Ventura	487 52
	<hr/>
	\$11,984 18

AMOUNT OWING TO THE STATE OF CALIFORNIA

By counties for pupils committed since March 26, 1895.

Alameda	\$486 68
Butte	29 20
El Dorado	33 00
Fresno	260 50
Kings	22 00
Lake	22 00
Los Angeles	1,229 46
Mono	22 00
Nevada	66 00
Orange	44 00
Placer	22 00
Riverside	44 00
Sacramento	99 00
San Bernardino	391 12
San Diego	301 68
San Francisco	1,178 50
Santa Barbara	99 00
Santa Clara	387 33
Sonoma	113 15
Ventura	281 81
	<hr/>
	5,132 43
Total	<hr/>
	\$17,116 61

STATISTICS.

TABLE No. 1.

Number of Pupils Admitted and Dismissed from July 1, 1891, to June 30, 1896.

	1891-1892.			1892-1893.			1893-1894.			1894-1895.			1895-1896.			Total.		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
Number admitted by commitment.	253	58	311	202	39	241	180	33	213	128	24	152	125	27	152	888	181	1,069
Number returned from parole*	0	0	0	4	3	7	48	8	56	59	8	67	50	11	61	161	30	191
Number returned escapes	0	0	0	1	0	1	1	0	1	3	0	3	2	0	2	7	0	7
Totals	253	58	311	207	42	249	229	41	270	190	32	222	177	38	215	1,056	211	1,267
Number dismissed expiration term.	3	0	3	39	8	47	120	32	152	117	28	145	80	31	111	359	99	458
Number paroled	0	1	1	41	11	52	99	10	109	61	9	70	80	7	87	281	38	319
Number escaped	4	0	4	6	0	6	5	0	5	9	0	9	6	0	6	30	0	30
Number died	1	0	1	1	0	1	0	1	1	1	1	2	3	0	3	6	2	8
Number dismissed by Trustees.	0	1	1	9	4	13	2	1	3	1	0	1	0	0	1	12	6	18
Number dismissed by order of court	0	1	1	0	0	0	0	0	0	3	0	3	1	0	1	4	1	5
Number adjudged insane, committed to asylum.	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	1	2
Number pardoned by Governor	0	0	0	13	6	19	1	0	1	0	0	0	0	0	0	14	6	20
Totals	9	3	12	109	30	139	227	44	271	192	38	230	170	38	208	707	153	860

Males. Females. Total.

Total number present June 30, 1896

Total number on parole June 30, 1896.

Total number under jurisdiction of school June 30, 1896

*The terms of commitment of nearly all these pupils have expired and they are marked "Return from Parole" in order to be honorably dismissed from this school.

TABLE No. 2.
Recapitulation of Pupils Admitted and Dismissed from July 1, 1895, to June 30, 1896.

Month of—	Admitted.						Dismissed.					
	By Com- mitment.			Captured.			Return Paroles.			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1895—July	19	2	21	0	0	0	7	0	7	26	2	28
August	10	2	12	1	0	1	9	1	10	20	3	23
September	10	2	12	1	0	1	8	2	10	19	4	23
October	8	4	12	0	0	0	7	0	7	15	4	19
November	13	1	14	0	0	0	5	1	6	18	2	20
December	7	1	8	0	0	0	3	0	3	10	1	11
1896—January	11	2	13	0	0	0	2	0	2	14	6	20
February	8	2	10	0	0	0	3	4	7	10	2	12
March	15	3	18	0	0	0	1	1	2	16	4	20
April	7	5	12	0	0	0	2	1	3	9	6	15
May	9	1	10	0	0	0	1	1	2	10	2	12
June	8	2	10	0	0	0	2	0	2	10	2	12
Totals	125	27	152	2	0	2	50	11	61	177	38	215
Total Number Remaining at End of Month.												
Month of—	Males.			Females.			Total.			Month of—		
	Males.			Females.			Total.			Males.		
1895—July	348			57			405			1896—January	340	55
August	349			60			409			February	335	55
September	347			58			405			March	341	56
October	344			58			402			April	343	57
November	345			58			403			May	341	56
December	337			57			394			June	349	58
Totals	348			57			405			Totals	340	55
	349			60			409				335	55
	347			58			405				341	56
	344			58			402				343	57
	345			58			403				341	56
	337			57			394				349	58

TABLE No. 3.

Nativity of Pupils.

	Males.	Females.	Total.	Per Cent.
<i>United States.</i>				
Arizona	6	2	8	1.49
Alabama	2	0	2	.37
Arkansas	0	1	1	.19
California	245	36	281	52.54
Colorado	4	0	4	.75
Connecticut	1	0	1	.19
Dakota	3	0	3	.56
Georgia	1	1	2	.37
Idaho	2	1	3	.56
Illinois	21	2	23	4.31
Indiana	6	1	7	1.30
Iowa	14	2	16	3.00
Kansas	14	3	17	3.17
Kentucky	1	0	1	.19
Louisiana	2	0	2	.37
Maine	3	0	3	.56
Maryland	3	0	3	.56
Massachusetts	7	1	8	1.49
Michigan	6	2	8	1.49
Minnesota	2	0	2	.37
Missouri	19	0	19	3.55
Nevada	5	0	5	.93
Nebraska	3	0	3	.56
New York	10	1	11	2.06
New Hampshire	3	0	3	.56
North Carolina	0	1	1	.19
Oregon	5	1	6	1.12
Ohio	10	1	11	2.06
Pennsylvania	3	1	4	.75
Tennessee	2	0	2	.37
Texas	15	1	16	3.00
Utah	1	0	1	.19
Virginia	2	0	2	.37
Washington	1	0	1	.19
Wisconsin	5	0	5	.93
Unknown	7	4	11	2.06
Totals	434	62	496	92.72
<i>Foreign.</i>				
Australia	1	0	1	.19
Canada	5	1	6	1.12
Chile	0	1	1	.19
England	3	0	3	.56
France	2	1	3	.56
Germany	2	0	2	.37
Ireland	2	0	2	.37
Italy	4	0	4	.75
Mexico	7	0	7	1.30
Norway	1	0	1	.19
Portugal	1	0	1	.19
Russia	2	0	2	.37
Scotland	2	0	2	.37
Spain	1	0	1	.19
Sweden	1	1	2	.37
San Salvador	1	0	1	.19
Totals	35	4	39	7.28
<i>Recapitulation.</i>				
United States	434	62	496	92.72
Foreign	35	4	39	7.28
Totals	469	66	535	100.00

TABLE No. 4.

Nativity of Fathers of Pupils.

	Males.	Females.	Total.	Per Cent.
<i>United States.</i>				
Arizona	1	0	1	.19
Alabama	2	0	2	.37
Arkansas	3	0	3	.56
California	47	5	52	9.72
Colorado	1	0	1	.19
Connecticut	3	1	4	.75
Dakota	1	0	1	.19
Florida	1	0	1	.19
Georgia	2	0	2	.37
Idaho	1	1	2	.37
Illinois	22	0	22	4.11
Indiana	10	1	11	2.06
Iowa	8	1	9	1.68
Kansas	0	1	1	.19
Kentucky	8	0	8	1.49
Louisiana	4	0	4	.75
Maine	8	2	10	1.87
Maryland	5	1	6	1.12
Massachusetts	6	1	7	1.30
Michigan	2	0	2	.37
Minnesota	1	0	1	.19
Missouri	26	1	27	5.06
New Jersey	3	0	3	.56
Nebraska	2	0	2	.37
New York	30	2	32	5.99
New Hampshire	1	0	1	.19
North Carolina	2	1	3	.56
Oregon	1	0	1	.19
Ohio	15	2	17	3.17
Pennsylvania	9	2	11	2.06
Tennessee	7	1	8	1.49
Texas	9	1	10	1.87
Utah	1	1	2	.37
Vermont	3	0	3	.56
Virginia	7	0	7	1.30
Washington	0	1	1	.19
Wisconsin	4	0	4	.75
Unknown	41	9	50	9.35
Totals	297	35	332	62.06
<i>Foreign.</i>				
Austria-Hungary	0	1	1	.19
Australia	0	1	1	.19
Canada	12	1	13	2.43
Chile	3	0	3	.56
Denmark	1	0	1	.19
England	15	6	21	3.93
France	7	3	10	1.87
Germany	26	6	32	5.99
Ireland	41	4	45	8.40
Italy	10	1	11	2.06
Mexico	14	1	15	2.80
Norway	2	0	2	.37
Panama	1	0	1	.19
Poland	2	0	2	.37
Portugal	9	0	9	1.68
Russia	2	0	2	.37
Scotland	11	1	12	2.24
Spain	2	1	3	.56
Sweden	1	2	3	.56
Switzerland	3	0	3	.56
Wales	2	1	3	.56
Unknown	8	2	10	1.87
Totals	172	31	203	37.94

TABLE No. 4—Continued.

	Males.	Females.	Total.	Per Cent.
<i>Recapitulation.</i>				
United States	297	35	332	62.06
Foreign	172	31	203	37.94
Totals	469	66	535	100.00

TABLE No. 5.

Nativity of Mothers of Pupils.

	Males.	Females.	Total.	Per Cent.
<i>United States.</i>				
Arizona	2	0	2	.37
Alabama	1	0	1	.19
Arkansas	2	0	2	.37
California	84	14	98	18.32
Colorado	1	0	1	.19
Connecticut	2	0	2	.37
Florida	1	1	2	.37
Georgia	4	0	4	.75
Idaho	0	1	1	.19
Illinois	26	2	28	5.25
Indiana	13	0	13	2.43
Iowa	13	1	14	2.62
Kansas	2	1	3	.56
Kentucky	6	0	6	1.12
Louisiana	2	0	2	.37
Maine	4	0	4	.75
Minnesota	0	1	1	.19
Maryland	2	0	2	.37
Massachusetts	6	2	8	1.49
Michigan	5	1	6	1.12
Mississippi	1	0	1	.19
Missouri	23	2	25	4.68
New Jersey	1	0	1	.19
Nevada	2	0	2	.37
Nebraska	3	0	3	.56
New York	23	1	24	4.49
North Carolina	3	2	5	.93
Oregon	5	0	5	.93
Ohio	14	1	15	2.80
Pennsylvania	5	2	7	1.30
Rhode Island	1	0	1	.19
Tennessee	5	0	5	.93
Texas	8	2	10	1.87
Utah	3	1	4	.75
Vermont	2	0	2	.37
Virginia	7	0	7	1.30
Washington	1	0	1	.19
Wisconsin	3	0	3	.56
Unknown	31	9	40	7.48
Totals	317	44	361	67.47
<i>Foreign.</i>				
Austria-Hungary	0	1	1	.19
Australia	3	0	3	.56
Canada	8	1	9	1.68
England	16	3	19	3.55
France	2	0	2	.37
Germany	22	3	25	4.68
Ireland	46	6	52	9.72
Italy	8	1	9	1.68

TABLE No. 5—Continued.

	Males.	Females.	Total.	Per Cent.
<i>Foreign—Continued.</i>				
Mexico	13	1	14	2.62
Norway	1	0	1	.19
Poland	1	0	1	.19
Portugal	8	0	8	1.49
Russia	2	1	3	.56
Scotland	9	1	10	1.87
Spain	1	1	2	.37
Sweden	2	1	3	.56
San Salvador	1	0	1	.19
Switzerland	1	0	1	.19
Wales	1	0	1	.19
Unknown	7	2	9	1.68
Totals	152	22	174	32.53
<i>Recapitulation.</i>				
United States	317	44	361	67.47
Foreign	152	22	174	32.53
Totals	469	66	535	100.00

TABLE No. 6.

Nativity of Parents of Pupils.

	Males.	Females.	Total.	Per Cent.
Both parents native born	281	33	314	58.69
One parent native and one foreign born	57	19	76	14.21
Both parents foreign born	131	14	145	27.10
Totals	469	66	535	100.00

TABLE No. 7.

Ages of Pupils.

	Males.	Females.	Total.	Per Cent.
Eight years	5	0	5	.93
Nine years	7	0	7	1.30
Ten years	14	1	15	2.80
Eleven years	16	1	17	3.17
Twelve years	46	9	55	10.29
Thirteen years	53	11	64	11.96
Fourteen years	64	12	76	14.21
Fifteen years	89	18	107	20.01
Sixteen years	85	13	98	18.32
Seventeen years	90	1	91	17.01
Totals	469	66	535	100.00

TABLE No. 8.

Terms of Commitment of Pupils.

	Males.	Females.	Total.	Per Cent.
One year	1	0	1	.19
One and one half years	0	2	2	.37
Two years	1	3	4	.75
Two and three fourths years	0	1	1	.19
Three years	17	1	18	3.36
Three and one third years	1	0	1	.19
Three and one half years	1	0	1	.19
Four years	11	3	14	2.62
Four and one half years	1	0	1	.19
Five years	29	2	31	5.79
Six years	4	0	4	.75
Seven years	8	0	8	1.49
Indefinite, or until further order of court	11	0	11	2.06
Minority	379	54	433	80.93
Totals	469	66	535	100.00

TABLE No. 9.

Causes of Commitment of Pupils.

	Males.	Females.	Total.	Per Cent.
Administering poison with intent to kill	2	0	2	.37
Attempt to commit grand larceny	1	0	1	.19
Assault with intent to commit murder	2	0	2	.37
Assault	1	0	1	.19
Assault with intent to commit rape	2	0	2	.37
Attempt to commit robbery	4	0	4	.75
Attempt to commit burglary	1	0	1	.19
Assault with deadly weapon	3	0	3	.56
Battery	1	0	1	.19
Burglary	114	0	114	21.30
Crime against nature	3	0	3	.56
Disturbing the peace	0	2	2	.37
Embezzlement	2	0	2	.37
Forgery	3	0	3	.56
Furnishing liquor to Indians	1	0	1	.19
Grand larceny	35	0	35	6.54
Incorrigible	235	62	297	55.51
Injuring public jail	1	0	1	.19
Manslaughter	2	0	2	.37
Obtaining goods under false pretenses	1	0	1	.19
Petit larceny	34	1	35	6.55
Receiving stolen property	1	0	1	.19
Robbery	11	0	11	2.06
Sodomy	1	0	1	.19
Vagrancy	8	1	9	1.68
Totals	469	66	535	100.00

TABLE No. 10.

Color of Pupils.

	Males.	Females.	Total.	Per Cent.
White	446	61	507	94.75
Colored	23	5	28	5.25
Totals	469	66	535	100.00

TABLE No. 11.

Number of Pupils from Each County.

County.	Males.	Females.	Total.	Per Cent.
Alameda	35	7	42	7.85
Butte	4	0	4	.75
Colusa	4	0	4	.75
Contra Costa	1	0	1	.19
El Dorado	2	1	3	.56
Fresno	23	5	28	5.25
Kings	4	0	4	.75
Kern	1	0	1	.19
Lake	1	1	2	.37
Los Angeles	143	16	159	29.71
Mendocino	5	0	5	.93
Merced	2	0	2	.37
Monterey	6	0	6	1.12
Mono	0	1	1	.19
Madera	2	1	3	.56
Marin	1	0	1	.19
Napa	6	0	6	1.12
Nevada	2	2	4	.75
Orange	10	3	13	2.43
Placer	2	3	5	.93
Riverside	8	1	9	1.68
Sacramento	7	4	11	2.06
San Benito	1	0	1	.19
San Bernardino	28	6	34	6.35
San Diego	21	3	24	4.49
San Francisco	70	4	74	13.82
San Joaquin	3	0	3	.56
San Luis Obispo	6	0	6	1.12
Santa Barbara	17	2	19	3.55
Santa Cruz	5	0	5	.93
Santa Clara	22	3	25	4.68
Shasta	1	0	1	.19
Solano	2	0	2	.37
Sonoma	5	1	6	1.12
Tulare	3	0	3	.56
Ventura	12	2	14	2.62
Yolo	4	0	4	.75
Totals	469	66	535	100.00

STATISTICAL TABLES,

Containing 1,069 pupils—the total number of pupils admitted to this Institution.

TABLE No. 1.

Nativity of Pupils Admitted from July 1, 1891, to June 30, 1896.

	Males.	Females.	Total.	Per Cent.
<i>United States.</i>				
Arizona	9	2	11	1.03
Alabama	3	0	3	.28
Arkansas	7	1	8	.75
California	513	103	616	57.62
Colorado	6	0	6	.56
Connecticut	1	0	1	.09
Dakota	2	0	2	.19
Florida	0	1	1	.09
Georgia	1	2	3	.28
Idaho	1	0	1	.09
Illinois	24	6	30	2.80
Indiana	6	0	6	.56
Iowa	20	5	25	2.34
Kansas	18	11	29	2.71
Kentucky	2	0	2	.19
Louisiana	5	2	7	.65
Maine	2	0	2	.19
Maryland	5	0	5	.46
Massachusetts	11	2	13	1.22
Michigan	8	1	9	.84
Minnesota	8	0	8	.75
Missouri	34	12	46	4.30
Nevada	8	0	8	.84
Nebraska	7	3	10	.93
New Hampshire	4	0	4	.37
New York	19	4	23	2.16
North Carolina	2	0	2	.19
Oregon	12	1	13	1.22
Ohio	10	2	12	1.12
Pennsylvania	9	4	13	1.22
Rhode Island	2	0	2	.19
Tennessee	3	0	3	.28
Texas	25	3	28	2.60
Utah	1	0	1	.09
Virginia	1	0	1	.09
Washington	4	1	5	.46
Wisconsin	5	1	6	.56
Unknown	20	6	26	2.43
Totals	818	173	991	92.74
<i>Foreign.</i>				
Australia	2	0	2	.19
Canada	11	1	12	1.12
Chile	0	1	1	.09
England	11	2	13	1.12
France	5	0	5	.46
Germany	4	0	4	.37
Ireland	5	0	5	.46
Italy	6	1	7	.65
Mexico	8	0	8	.75
Norway	3	0	3	.28
Portugal	1	0	1	.09
Russia	4	0	4	.37
Scotland	4	0	4	.37
Spain	2	0	2	.19
Sweden	2	2	4	.37
San Salvador	1	0	1	.09
Unknown	1	1	2	.19
Totals	70	8	78	7.26
<i>Recapitulation.</i>				
United States	818	173	991	92.74
Foreign	70	8	78	7.26
Totals	888	181	1,069	100.00

TABLE No. 2.

Nativity of Fathers of Pupils Admitted from July 1, 1891, to June 30, 1896.

	Males.	Females.	Total.	Per Cent.
<i>United States.</i>				
Alabama	10	1	11	1.03
Arkansas	5	0	5	.46
California	60	7	67	6.27
Colorado	1	0	1	.09
Connecticut	3	1	4	.37
Florida	2	0	2	.19
Georgia	2	0	2	.19
Idaho	2	1	3	.28
Illinois	36	5	41	3.83
Indiana	14	2	16	1.50
Iowa	13	2	15	1.40
Kansas	3	1	4	.37
Kentucky	12	0	12	1.12
Louisiana	5	0	5	.46
Maine	12	4	16	1.50
Maryland	6	0	6	.56
Massachusetts	12	6	18	1.68
Michigan	6	1	7	.65
Minnesota	2	0	2	.19
Mississippi	1	0	1	.09
Missouri	35	3	38	3.55
Nebraska	2	0	2	.19
New Hampshire	3	1	4	.37
New Jersey	6	0	6	.56
New York	67	11	78	7.29
North Carolina	1	2	3	.28
Oregon	3	0	3	.28
Ohio	24	6	30	2.80
Pennsylvania	19	5	24	2.23
Rhode Island	2	0	2	.19
Tennessee	18	2	20	1.87
Texas	13	2	15	1.40
Utah	2	1	3	.28
Vermont	4	0	4	.37
Virginia	11	0	11	1.03
Washington	1	0	1	.09
Wisconsin	5	2	7	.65
Unknown	68	27	95	8.88
Totals	491	93	584	54.63
<i>Foreign.</i>				
Azores Islands	1	0	1	.09
Australia	0	2	2	.19
Austria-Hungary	2	1	3	.28
Belgium	1	0	1	.09
Canada	20	3	23	2.16
Chile	3	0	3	.28
Denmark	1	1	2	.19
England	45	18	63	5.90
France	18	8	26	2.43
Germany	48	15	63	5.90
Ireland	142	24	166	15.53
Italy	24	1	25	2.34
Mexico	23	3	26	2.43
Norway	4	0	4	.37
Poland	1	0	1	.09
Portugal	11	0	11	1.03
Russia	3	2	5	.46
Scotland	20	2	22	2.06
Spain	4	2	6	.56
Sweden	7	2	9	.84
Switzerland	2	1	3	.28
Victoria	0	1	1	.09
Wales	9	2	11	1.03
Unknown	8	0	8	.75
Totals	397	88	485	45.37

TABLE No. 2—Continued.

	Males.	Females.	Total.	Per Cent.
<i>Recapitulation.</i>				
United States	491	93	584	54.63
Foreign	397	88	485	45.37
Totals	888	181	1,069	100.00

TABLE No. 3.

Nativity of Mothers of Pupils Admitted from July 1, 1891, to June 30, 1896.

	Males.	Females.	Total.	Per Cent.
<i>United States.</i>				
Arizona	2	0	2	.19
Alabama	4	0	4	.37
Arkansas	5	3	8	.75
California	107	26	133	12.46
Colorado	1	0	1	.09
Connecticut	5	0	5	.46
Florida	1	1	2	.19
Georgia	7	0	7	.65
Idaho	1	1	2	.19
Illinois	44	7	51	4.78
Indiana	12	2	14	1.31
Iowa	20	3	23	2.16
Kansas	2	4	6	.56
Kentucky	9	2	11	1.03
Louisiana	12	0	12	1.12
Montana	0	1	1	.09
Maine	11	0	11	1.03
Maryland	2	0	2	.19
Massachusetts	12	6	18	1.68
Michigan	6	2	8	.75
Minnesota	1	0	1	.09
Mississippi	6	0	6	.56
Missouri	46	4	50	4.69
Nevada	1	0	1	.09
Nebraska	7	0	7	.65
New Hampshire	1	0	1	.09
New Jersey	1	1	2	.19
New York	51	14	65	6.09
North Carolina	3	2	5	.46
Oregon	5	0	5	.46
Ohio	33	2	35	3.28
Pennsylvania	11	5	16	1.50
Rhode Island	2	0	2	.19
South Carolina	1	0	1	.09
Tennessee	7	0	7	.65
Texas	13	1	14	1.31
Utah	4	1	5	.46
Vermont	4	0	4	.37
Virginia	5	2	7	.65
Washington	4	0	4	.37
Wisconsin	3	1	4	.37
Unknown	77	21	98	9.18
Totals	549	112	661	61.84

TABLE No. 3—Continued.

	Males.	Females.	Total.	Per Cent.
<i>Foreign.</i>				
At sea.....	0	1	1	.09
Australia.....	2	1	3	.28
Austria-Hungary.....	0	1	1	.09
Belgium.....	1	0	1	.09
Canada.....	14	3	17	1.59
England.....	31	8	39	3.66
France.....	11	2	13	1.22
Germany.....	37	15	52	4.88
Ireland.....	142	26	168	15.73
Italy.....	18	1	19	1.79
Mexico.....	22	0	22	2.06
Norway.....	4	0	4	.37
New Zealand.....	1	0	1	.09
Peru.....	1	0	1	.09
Panama.....	1	0	1	.09
Poland.....	1	0	1	.09
Portugal.....	9	0	9	.84
Russia.....	6	0	6	.56
Scotland.....	16	1	17	1.59
Spain.....	2	3	5	.46
Sweden.....	5	2	7	.65
Switzerland.....	4	1	5	.46
Wales.....	5	0	5	.46
Unknown.....	6	4	10	.93
Totals.....	339	69	408	38.16
<i>Recapitulation.</i>				
United States.....	594	112	661	61.84
Foreign.....	339	69	408	38.16
Totals.....	888	181	1,069	100.00

TABLE No. 4.

Nativity of Parents of Pupils Admitted from July 1, 1891, to June 30, 1896.

	Males.	Females.	Total.	Per Cent.
Both parents native born.....	448	69	517	48.37
One parent native and one foreign born.....	142	54	196	18.33
Both parents foreign born.....	298	58	356	33.30
Totals.....	888	181	1,069	100.00

TABLE No. 5.

Ages of Pupils.

	Males.	Females.	Total.	Per Cent.
Eight years	5	0	5	.46
Nine years	7	0	7	.65
Ten years	20	2	22	2.06
Ten and one half years	4	0	4	.37
Eleven years	27	1	28	2.60
Eleven and one half years	6	0	6	.56
Twelve years	75	13	88	8.24
Twelve and one half years	8	1	9	.84
Thirteen years	82	19	101	9.44
Thirteen and one half years	19	3	22	2.06
Fourteen years	133	25	168	15.74
Fourteen and one half years	16	3	19	1.79
Fifteen years	153	42	195	18.25
Fifteen and one half years	41	8	49	4.68
Sixteen years	129	49	178	16.65
Sixteen and one half years	24	6	30	2.80
Seventeen years	112	9	121	11.33
Seventeen and one half years	10	0	10	.93
Eighteen years	7	0	7	.65
Totals	888	181	1,069	100.00

TABLE No. 6.

Terms of Commitment of Pupils Admitted from July 1, 1891, to June 30, 1896.

	Males.	Females.	Total.	Per Cent.
Six months	2	1	3	.28
Nine months	1	0	1	.09
One year	40	11	51	4.78
One year and six months	7	3	10	.93
Two years	109	34	143	13.38
Two years and six months	4	5	9	.84
Two years and nine months	1	0	1	.09
Three years	160	33	193	18.06
Three years and three months	5	0	5	.46
Three years and six months	3	1	4	.37
Four years	62	14	76	7.12
Four years and six months	1	0	1	.09
Five years	63	4	67	6.27
Six years	4	0	4	.37
Seven years	9	0	9	.84
Eight years	5	0	5	.46
Indefinite	11	1	12	1.12
During minority	401	74	475	44.45
Totals	888	181	1,069	100.00

TABLE No. 7.

Cause of Commitment of Pupils Admitted from July 1, 1891, to June 30, 1896.

	Males.	Females.	Total.	Per Cent.
Arson	2	0	2	.19
Administering poison with intent to kill	2	0	2	.19
Attempt to commit arson	1	0	1	.09
Attempt to commit grand larceny	2	0	2	.19
Assault	5	0	5	.46
Assault with intent to commit rape	3	0	3	.28
Assault with intent to commit murder	2	0	2	.19
Attempt to commit robbery	4	0	4	.37
Attempt to commit burglary	1	0	1	.09
Assault with deadly weapon	3	0	3	.28
Battery	5	1	6	.56
Burglary	172	1	173	16.20
Crime against nature	3	0	3	.28
Disturbing the peace	9	3	12	1.12
Embezzlement	3	0	3	.28
Forgery	4	0	4	.37
Furnishing liquor to Indians	1	0	1	.09
Grand larceny	46	1	47	4.41
Incorrigible	380	134	514	48.09
Indecent exposure	1	0	1	.09
Injuring public jail	3	0	3	.28
Leading idle and dissolute life	3	0	3	.28
Misdemeanor	1	0	1	.09
Malicious mischief	2	0	2	.19
Manslaughter	2	0	2	.19
Obtaining goods under false pretenses	3	0	3	.28
Opening and reading sealed letter of another	0	1	1	.09
Petit larceny	122	3	125	11.70
Personating an officer	1	0	1	.09
Receiving stolen property	2	1	3	.28
Robbery	15	0	15	1.40
Sodomy	1	0	1	.09
Tender age and crimes committed	1	0	1	.09
Vagrancy	83	36	119	11.13
Totals	888	181	1,069	100.00

TABLE No. 8.

Color of Pupils.

	Males.	Females.	Total.	Per Cent.
White	854	174	1,028	96.17
Colored	34	7	41	3.83
Totals	888	181	1,069	100.00

TABLE No. 9.

Counties from which Pupils were Committed from July 1, 1891, to June 30, 1896.

County.	Males.	Females.	Total.	Per Cent.
Alameda.....	71	10	81	7.59
Butte.....	7	1	8	.75
Colusa.....	5	0	5	.46
Contra Costa.....	1	0	1	.09
El Dorado.....	2	1	3	.28
Fresno.....	28	9	37	3.48
Humboldt.....	2	0	2	.19
Kings.....	4	0	4	.37
Kern.....	1	0	1	.09
Los Angeles.....	239	50	289	27.05
Lake.....	1	1	2	.19
Mendocino.....	9	0	9	.84
Mariposa.....	1	0	1	.09
Merced.....	3	0	3	.28
Monterey.....	7	0	7	.65
Madera.....	2	1	3	.28
Mono.....	0	1	1	.09
Marin.....	1	0	1	.09
Napa.....	7	0	7	.65
Nevada.....	4	6	10	.93
Orange.....	14	3	17	1.59
Placer.....	5	3	8	.75
Riverside.....	10	1	11	1.03
Sacramento.....	19	9	28	2.60
San Benito.....	1	0	1	.09
San Bernardino.....	53	9	62	5.80
San Diego.....	30	5	35	3.28
San Francisco.....	227	55	282	26.39
San Joaquin.....	10	1	11	1.03
San Luis Obispo.....	10	0	10	.93
San Mateo.....	1	0	1	.09
Santa Barbara.....	24	3	27	2.54
Santa Cruz.....	6	0	6	.56
Santa Clara.....	29	3	32	3.00
Shasta.....	3	0	3	.28
Solano.....	3	3	6	.56
Sonoma.....	15	3	18	1.68
Stanislaus.....	1	0	1	.09
Tulare.....	9	0	9	.84
Ventura.....	18	3	21	1.97
Yuba.....	1	0	1	.09
Yolo.....	4	0	4	.37
Totals.....	888	181	1,069	100.00

TABLE No. 10.

Parentage of Pupils.

	No.	Per Cent.
Pupils whose parents were separated when committed to school....	212	19.85
Pupils whose parents were deceased when committed to school....	94	8.79
Pupils whose fathers were deceased when committed to school....	203	18.93
Pupils whose mothers were deceased when committed to school....	108	10.10
Pupils who know nothing of their parents.....	48	4.49
Pupils whose parents were living together when committed to school.....	404	37.79
Totals.....	1,069	100.00

TABLE No. 11.

Attendance of Pupils at School Previous to Admission—July 1, 1891, to June 30, 1896.

	Males.	Females.	Total.	Per Cent.
Never attended school	63	15	78	7.30
One week	4	0	4	.37
Two weeks	1	1	2	.19
Three weeks	2	0	2	.19
One month	3	0	3	.28
Two months	4	0	4	.37
Three months	7	2	9	.84
Four months	2	0	2	.19
Four and one half months	1	0	1	.09
Five months	1	0	1	.09
Six months	10	1	11	1.03
Seven months	0	1	1	.09
One year	44	10	54	5.05
One and one half years	9	1	10	.93
Two years	93	10	103	9.64
Two and one half years	8	2	10	.93
Three years	115	18	133	12.46
Three and one half years	3	2	5	.46
Four years	116	19	135	12.63
Four and one half years	1	0	1	.09
Five years	139	31	170	15.91
Five and one half years	3	0	3	.28
Six years	105	14	119	11.13
Seven years	79	24	103	9.64
Eight years	47	15	62	5.80
Nine years	15	11	26	2.43
Ten years	13	4	17	1.59
Totals	888	181	1,069	100.00
Attended school not more than one year	142	30	172	16.09
Attended school not more than six years	734	127	861	80.54

Average attendance at school previous to commitment, 4.19 years.

N. B.—School-year, nine months.

TABLE No. 12.

Education of Pupils Previous to Admission—July 1, 1891, to June 30, 1896.

	Males.	Females.	Total.	Per Cent.
Educated in Public Schools	680	118	798	74.65
Educated in Catholic Schools	66	24	90	8.42
Educated in Public and Catholic Schools	61	25	86	8.05
Educated in Institutions	19	1	20	1.87
Never attended school	62	13	75	7.01
Totals	888	181	1,069	100.00

SPECIAL REPORT

ON THE

WHITTIER STATE SCHOOL

AT WHITTIER, LOS ANGELES COUNTY,

AND

Consideration Touching the Reform of Juvenile Delinquents.

By ADINA MITCHELL, - - - Trustee Whittier State School.

SPECIAL REPORT

ON THE

WHITTIER STATE SCHOOL,

By ADINA MITCHELL, Trustee.

LOS ANGELES, CAL., November 18, 1896.

To HON. JAMES H. BUDD, *Governor of the State of California, Sacramento, Cal.:*

DEAR SIR: With your permission, I submit this special report as to certain conditions at Whittier State School as I understand them, and present the result of my observations and investigations touching the reform of juvenile delinquents in this State.

THE ENLARGEMENT OF THE SCHOOL AND REFORM SYSTEM OF THE STATE.

In my opinion, the work of reforming the juvenile delinquents should be reorganized and systematized on different lines from the present. It should be one of the essential parts of the plan of education, and should begin in our public school system, which, if enlarged in certain particulars, would diminish the number of delinquents to be reformed.

COMPULSORY EDUCATION.

To this end, in the first place, there should be compulsory education. In European countries this system has long been in successful operation. All children, from say seven to fourteen years, should be required by law to attend some well-equipped school, public or private. And their parents and guardians should be held responsible for their presence under penalty of the law.

THE KINDERGARTEN AND SLOYD DEPARTMENTS.

The Kindergarten and Sloyd departments, which are being inaugurated into the public school system, furnish a proper place for the smaller children of certain classes, and is a most excellent innovation.

THE REFORMATORY AND CHILDREN UNDER FOURTEEN YEARS.

But very important is the consideration of the problem of the relation of the younger children to the reformatory school. No boy under fourteen years and no girl under twelve years should be committed there. And those already there under these ages should be removed as soon as practicable. For it is only in rare and very abnormal cases that children under fourteen years need the discipline of a penal reformatory. Such, however, would have to be looked after by reform and penal institutions. But there is at Whittier a large number of small boys and girls who are there because they have become outcasts, or their parents or guardians have connived to have them committed to be relieved of the burden of rearing them. They should not be in this school. It is not the place for them. But the important question is, what shall be done with the little girls and boys who run the streets under the age of 12 and 14 years, respectively, and who are led into vicious mischief and petty crimes? This is one remedy: The Board of Supervisors of each county should be authorized and required to provide a Board of Charities, one of the duties of which should be to act in conjunction with the educational authorities so that provision for the personal necessities and the educational requirements of these children should be met. This would provide for the very small children who are incorrigible and outcasts and who are not, until a period of probation, morally fit to come in contact with the innocent children of the orphan asylums and schools, and are still not so steeped in crime as to be committed to a penal reformatory.

TRUANT SCHOOLS.

To relieve the intermediate stage between children who are simply incorrigible and those who commit petty criminal offenses, there should be established truant schools. Primarily, truantism is the cause of most of the incorrigibility and youthful crimes. But this is an educational problem for the school authorities to deal with, and not a matter for the police and criminal magistrates to manage. Not until truancy leads to actual crime should the delinquent be handed over to the penal reformatory. While truancy is not in itself a crime, it is the almost certain road that leads to crime. Restrained, corrected, and disciplined the truant must be. But not by the force of the criminal machinery of the

law should they be shut up in an institution of a penal character. For, the moment boys or girls enter there, no matter what may be the cause for commitment, they are marked, and they are soon forced to realize this. Therefore, there should be established and operated, under the control of the educational authorities, in every populous community and county, truant schools, patterned, as far as practicable, after those in successful operation elsewhere.

ECONOMY IN EXTENDING SYSTEM.

To inaugurate such a system would at first entail considerable expense to State, county, and municipal governments; but it would be economy in the end, because it would decrease the number of incorrigibles and youthful criminals and be a great factor toward decreasing the number of crimes and the criminals now filling the penitentiaries.

CONSIDERATIONS AND SUGGESTIONS TOUCHING WHITTIER STATE SCHOOL.

Notwithstanding it is only about five years since the Whittier State School was inaugurated, many of its methods are already obsolete in reform institutions in the fore-front of this branch of sociological reform. The classification of the pupils and dormitory accommodations should be improved. The present arrangement of the buildings greatly hampers in this respect. The boys, except the very small ones, are accommodated at present in the main or Administration Building. This is not only inconvenient, but disadvantageous for many reasons. The remedy lies in the establishment of the segregate or cottage system for the smaller boys, and for the larger ones a series of one-story dormitory barracks surrounding the drill ground. Such barracks could in the main be constructed of brick made at the school, and their cost would be comparatively small. And by adopting a picturesque style of architecture, suitable to the locality, the appearance of the grounds would be greatly enhanced. The Administration Building could then be used for administration purposes, and would accommodate the officers and business and educational work of the institution.

THE TRADES DEPARTMENT.—A proposition is now under consideration by the Board of Trustees for erecting and equipping a new Trades Building, and the adding of other trades to those already taught. This is most desirable and absolutely necessary for successfully carrying out the aims and purposes of the work at Whittier. The accommodations, tools, machinery, and appliances for the teaching of the trades is almost worthless for the purpose. In this connection, in my judgment, too great caution cannot be used in the methods of instructing the youth—proficiency in the trades. To my mind they should be taught funda-

mental principles of trades, and trades rather than branches of trades. For illustration, I do not think it advisable to teach in the schools the making of parts of shoes by machinery—one boy engaged at one particular task. But if shoemaking is taught at all, the boy should learn to make the shoe by hand from the cutting and fitting to the finishing, though it be intended that when he makes shoes when he is discharged he makes them entirely by machinery. As to the different trades, the necessity is to have thorough and technical skill acquired, both for economical and educational reasons. And this must be done by incorporating manual with intellectual education.

As to the erection of this Trades Building at Whittier at this time, if there is a probability of the plan, already suggested, of consolidating the Preston and Whittier Schools and removing them to Glen Ellen, of which plan I shall treat following, of course no further steps should be taken in the matter.

THE SCHOLASTIC DEPARTMENT.—The scholastic department of the schools should be maintained, to the extent of furnishing the boys and girls with what is termed a good common-school education. And no boy or girl should be allowed to leave these institutions without being able to read and write well and understanding the fundamental principles of arithmetic and grammar. And their educational training should be paramount and should not be subordinated to any employment in the school.

THE LIBRARY AND READING-ROOMS.—The library facilities should be increased by the addition of new books, current magazines, periodicals, and newspaper publications, and this department managed so as to be accessible to the teachers at all times. And a line of books and magazines on penology and kindred subjects should be added for the benefit of the officers and teachers, who should in this respect be furnished with all information that could possibly assist them in their arduous labors.

Reading-rooms are entirely lacking at present at Whittier. The plans now under consideration for a proposed new Trades Building contemplate increased accommodations for the library and the addition of proper reading-rooms.

THE GYMNASIUM.—There is at present no gymnasium for the boys at Whittier, but the addition of one is being considered with the Trades Building plans. It will, I believe, be superfluous for me to attempt to emphasize the need of this improvement or the benefits which I believe will accrue from its use by the boys.

REFORM AND EXTENSION OF THE GIRLS' DEPARTMENT.—I would urge the addition to the reform work with girls many features not now in use in the Girls' Department at Whittier. Among the plans that could be inaugurated to advantage would be:

1. *Carpet-Weaving*.—In the cutting of the clothing for the children there is left immense quantities of pieces of cloth that could be cut and sewed into carpet rags and woven into rugs and carpets.

2. *Knitting* (by knitting machines).—By providing knitting machines the girls could be taught this work and, besides, be enabled to knit the hosiery for all kindred institutions.

3. *Expert Dressmaking and Tailoring*.—Dressmaking in an ordinary and primitive way is now being taught at the Girls' Department at Whittier. Tailoring should be added, not to fit the girls for the sweat-shops, but as an accompaniment to dressmaking, thereby making them more efficient and skillful.

4. *Cooking and the Chemistry of Cooking*.—Plain cooking is already taught, but as an absolute science it is not treated.

5. *Clay-Modeling, Drawing, and Wood-Carving*.—These studies would be of great benefit as a recreation and a stimulus to lead these children to higher and nobler aims. Some of the girls now there show, in a crude way, ability in these directions, and such a talent might be the only one that some of these children possess, subject to successful development.

6. *Dairy Work*.—The girls should be taught the making of butter and all dairy work for which women are fitted.

7. *Floriculture and Gardening*.—Work and study with the flowers and in the garden would be of great benefit. Climatic conditions invite these healthy and profitable employments, and they should be inaugurated.

With these employments, added to general housekeeping, the education of the girls in the school-room, and humane and kind treatment from officers and teachers, these girls will not have to die to be saved from the burdens of their sex and the injustice of an insincere social system.

RECREATIONS AND GYMNASTICS FOR GIRLS.—While these employments for the girls should be provided, they should, like the boys, have all facilities for recreation. They should have a well-equipped outdoor gymnasium, and outdoor games and instruction in calisthenics, and books, magazines, and games for indoors, to be used during the evening and in inclement weather.

THE PUNISHMENT OF GIRLS.—And right here I want to say that the girls at Whittier have heretofore been outrageously and brutally punished and neglected, for which I hold the management responsible. Solitary confinement in a cell, and corporal punishment with the strap, have been wrongfully resorted to. The dark cell, and the divers contrivances of brute force, are not so much terrors to them, but are natural enemies that cause them to fight and resist. Such may do in some

cases for adult and mature depravity; but as a system of discipline for wayward children it is barbarism and a relic of the dark ages which is a disgrace to modern civilization. The remedy for all this, I repeat, is firm kindness and deprivation of privileges. The heart of a child is a strange kingdom, but love will find its way and sway it.

Furthermore, these girls have been absolutely neglected in respect to their personal needs. For recently, in supervising an inventory of this department, I found that many of the girls are in rags and tatters and in absolute need of sufficient clothing, and they have not a proper change of outer or under wear. New outfits should be immediately provided, and there should be a change in the character and pattern of the uniform dresses. For these reasons, I must earnestly urge more liberal expenditure for the needs of these girls.

As to reforms in this department, I have just supervised a change of management there, authorized by the Board of Trustees, in which I have faith and which I believe, if properly supported by the Trustees and superior officers, will reorganize this department and remedy the evils which have produced so many complaints.

AN INDEPENDENT SCHOOL AND REFORMATORY FOR GIRLS.

The foregoing references to conditions in the Girls' Department at Whittier to my mind furnish the strongest argument I could present for an independent institution for girls and young women, under an independent management at Ione or elsewhere, and which I trust you will use your influence and great offices to bring about. By establishing this department under independent management, I believe it would not only be better for the girls, but more economical for the State.

DISCIPLINE AND PUNISHMENTS.

The methods of discipline are the cardinal features of a reformatory system. All modern experience has proven, beyond a doubt, that harsh treatment is conducive to the running away of children from reformatories, and their unrest and discontent while there. Therefore, right methods of treatment and discipline are of supreme importance. There should not be soft or sentimental methods, but firmness and kindness. Corporal punishment should be completely abolished. Attendants should be selected with reference to their ability to manage the youthful delinquent without resorting to such punishments. In this lies a remedy. The faculty of managing and controlling children is possessed by a sufficient number of persons to enable, with the use of proper care and discrimination, the selection of such as officers and attendants. I believe that, properly officered, reformatories can be conducted and dis-

ciplined by kind methods and without cells and contrivances of any kind for inflicting pain—a punishment by the deprivation of privileges being sufficient. If any corporal punishment is allowed at all, to regulate the extent is impossible, and it is most liable to be abused by an angry and oftentimes unsympathetic attendant.

PAROLES, COMMUTATIONS, AND PARDONS.

There has been much complaint to me about the granting or non-granting of paroles at Whittier. The system of paroles in reformatories is liable to abuse. The parole, if granted at all, should be only as a reward for good conduct, industry, and learning on the part of the children while in the school, and should never be granted on account of influence acting from without. But I am inclined to think the introduction of any system of parole in juvenile reformatories is a mistake. If a child needs the reform school at all, the full limit of minority should be devoted to its education and training and the molding of its character. And if fit to be discharged before the expiration of its term of sentence, it should be by commutation or the granting of a full pardon by Executive action.

THE OFFICERS AND ATTENDANTS.

The officers and attendants of such institutions should be most carefully selected and tried. No political or sentimental reason should be allowed to dictate an appointment or to retain an incompetent person or one not interested in the work. If there is found an officer or attendant who abuses the children in the slightest, or who indulges in unbecoming conduct before the children, thereby becoming poor examples for the children, before whom they should be models worthy of imitation both in manners and in morals, such officer or attendant should be immediately discharged.

THE EMPLOYMENT OF WOMEN.

In this work as many women as possible should be employed, as their influence is more effective in the impressionable time of youth. But most judicious care should be exercised in the selection of women assigned to this work.

MUSIC IN REFORMATORIES.

Being a strong believer in the ethical side of music, I cannot but urge the necessity for the extension and maintenance of musical instruction and exercises in the reform schools. "When the evil spirit from God was upon Saul, then David took an harp and played with his hand so Saul was refreshed and was well, and the evil spirit departed from him." While music is no substitute for moral principles or religious instruction,

it is a powerful and wholesome stimulus to both. It arouses the best emotions. Hence, what delinquent children should be taught is the ethical in music and to think music. The universities and schools are now introducing it, not as a pastime, but as a study that ennobles and lifts up to higher aims and ambitions. Therefore, I recommend that liberal support be given to musical instruction, and to the employment of teachers of highest tone and strength of character, and with a deep knowledge of the science of music and its application to the individual.

THE CONSOLIDATION OF WHITTIER AND PRESTON SCHOOLS, AND THEIR
ESTABLISHMENT AT ELDRIDGE.

Since my appointment as Trustee of this institution, in March, 1895, I have given much time to the study and consideration of reform methods and institutions. And in this work I have visited all the penal and reform institutions of the State, and from my study and observations I am forced to the conclusion that, generally speaking, our reform and penal systems, which are of course closely allied, are more cumbersome and expensive than they should be, and there is need of a thorough and entire reorganization of them.

From an economical standpoint, the taxpayers are unnecessarily burdened without compensatory benefit. They are supporting institutions of a similar character, scattered all over the State, that should be consolidated, and some should be transformed from some localities to others more desirable. In my opinion, the Whittier State School and the Preston School of Industry should be consolidated. The site of the Whittier State School is insufficient. The Superintendent, in his report, urges the necessity for more land and water, which cannot be secured except by very large outlay. The location selected for the site of the Preston School is not the most desirable and convenient, and the land comprising it is not generally fertile, and is unfit for the demands necessary to be made upon it by such an establishment. And as the site of neither of these institutions is sufficient for the needs of an institution for boys the size the consolidation would make, another should be selected.

Fortunately, the State possesses already an ideal locality for a boy's reformatory, one unsurpassed anywhere. It is the site of the California Home for the Care and Training of Feeble-Minded Children, at Eldridge, Sonoma County. The State's ownership embraces 1,700 acres of diversified fertile land, with both wood and water in abundance. It is accessible, and thoroughly adapted to all the needs and future growth and expansion of a great reform institution, such as the State will in time require. Its area is far more than is needed for the requirements of the Feeble-Minded Home. On the other hand, the Whittier School site

only comprises 160 acres, and thereon is accommodated both the boys' and girls' departments, distant one from the other by about three fourths of a mile. The buildings could be easily adapted to the needs of the Feeble-Minded Children, and are in fact more fitted for their needs than for present uses. The land is ample for all their wants, and the milder climate of Southern California, it must be conceded, is much better for the feeble-minded children than that of the northern part of the State. Therefore, in these particulars alone, the change would be advantageous.

A GIRLS' REFORMATORY AT IONE.

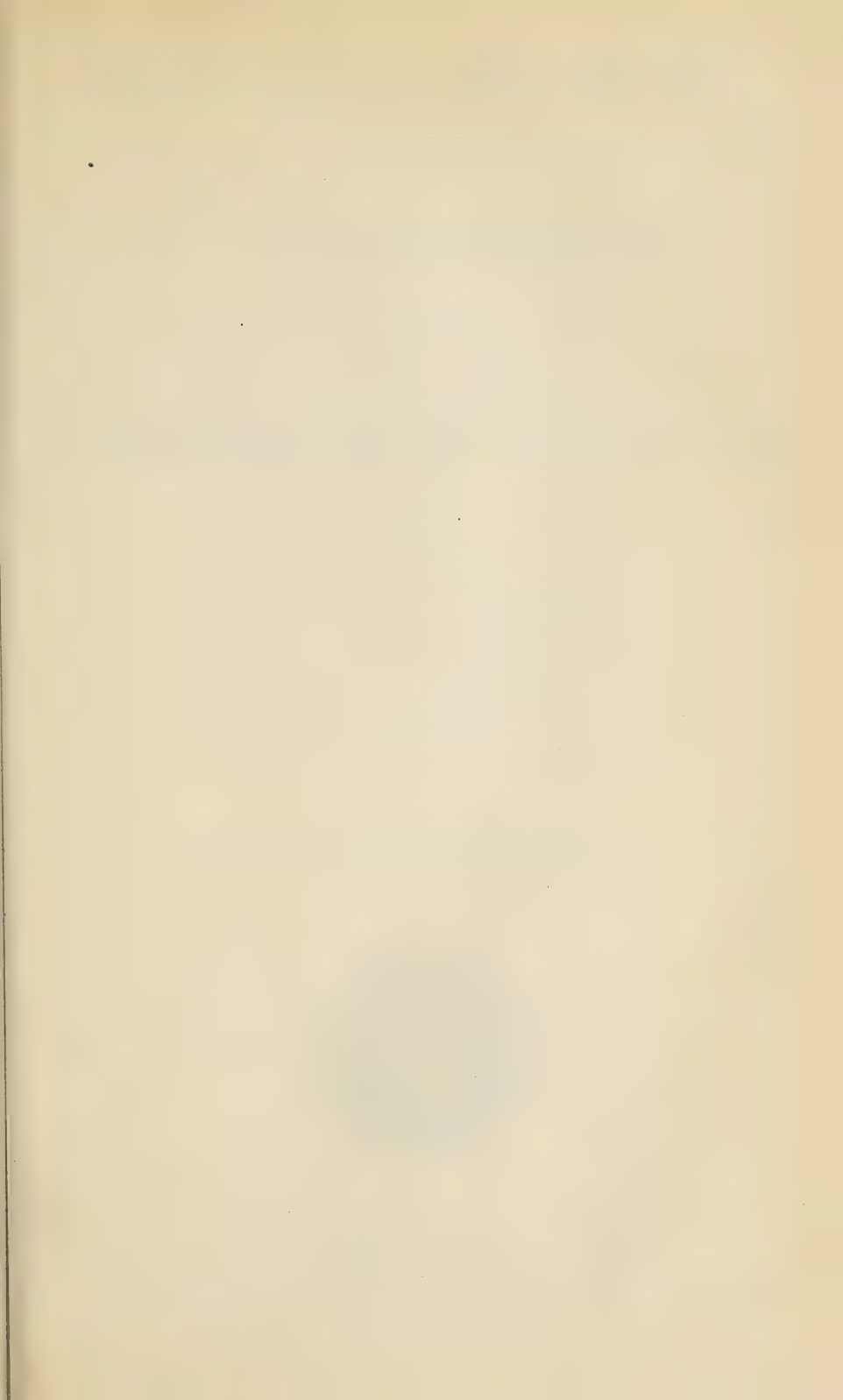
As to the Girls' Department at Whittier, it should be removed to Ione, and a separate institution established there for the care and reform of female delinquents from 12 to 21 years of age.

The experience at Whittier shows that it is a mistake to attempt the reformation of both sexes under the same management, as it is almost impossible to secure equal justice to the two departments, and the contrast between privileges causes discontent. The problem of reforming girls is one that requires an entirely different treatment and is more difficult than that of the boys. It is more delicate and trying. It requires entirely different methods to mold and change the character of the delinquent girls. This can best be done far removed from the influences that mysteriously emanate from the proximity of the sexes. The isolation of the Preston School site, and its being removed from large and populous cities, make this locality particularly fitted for a girls' reformatory, and I sincerely hope that such change as above considered may be effected by proper legislation through your recommendation.

There are many other matters of detail in the conduct of the affairs at Whittier that might be changed in behalf of what I consider to be a more successful and economical administration, but their recital would extend this report to too great length. Besides, I believe that with time and experience the Board of Trustees will be able to effectually deal with these problems.

Very respectfully submitted.

ADINA MITCHELL,
Trustee Whittier State School.



BIENNIAL REPORT OF THE DIRECTORS

AND THE

FORTY-THIRD AND FORTY-FOURTH ANNUAL REPORTS

OF THE

Superintendent of the Insane Asylum

OF THE

STATE OF CALIFORNIA

(AT STOCKTON).

FOR THE TWO YEARS ENDING JUNE 30, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1896.

DIRECTORS' REPORT.

To his Excellency JAMES H. BUDD, Governor of the State of California :

The Directors of the State Insane Asylum at Stockton hereby submit their biennial report for the forty-sixth and forty-seventh fiscal years. The Treasurer's report of the receipts and expenditures and the financial condition of the Asylum, and the Superintendent's Report, giving a statement of the accounts and the statistical tables, which show the general condition thereof, are also submitted and made a part of this report.

We call special attention to the very full and exhaustive report of the Superintendent. It contains much valuable and interesting matter not hitherto so completely displayed; notably in the table of general statistics, the items from the Supervisor's and Matron's daily reports, and the report of articles manufactured.

The total amount expended for maintenance during the two years, including the pay of all the officers and employés, was \$9,736 34 less than the appropriation for the support of the Asylum. The per capita cost per diem for the year ending June 30, 1895, was 36.4 cents, and for the year ending June 30, 1896, was 35.5 cents.

GENERAL IMPROVEMENTS AND REPAIRS.

The \$15,000 appropriated by the last Legislature for repairing the old building of the Men's Department was found insufficient, as it was discovered upon a more thorough examination incident to preparing plans and specifications for the work, that the south wing of the building was in a far more dilapidated and decayed condition than had at first been supposed; so decayed, in fact, that it had to be torn down and replaced by a new structure. Opportunity was also thereby afforded for conforming this wing architecturally to the rest of the building.

The north wing, too, when the plaster was stripped off the walls, was found in a worse condition than had been suspected and than could otherwise have been detected. Much of the brick of the interior walls was rotten, and in many places wooden blocks—some of them three or four feet in length—had been substituted for brick. These blocks were affected with dry rot, leaving the walls in a crumbling and dangerous condition. This, of course, necessitated a good deal of new brick work. The stairs in the center and in the north wing had to be removed and replaced by new ones.

The building has been rendered not only substantial and serviceable, but it also presents exteriorly a very handsome appearance, the outer walls having been painted and penciled, after being properly repaired and pointed. It will comfortably accommodate 500 patients. The total cost of the repairs will be about \$20,000, and the outlay is fully justified. The excess over the appropriation will be paid from the Contingent Fund. At the date of this report, October 10, 1896, all the repairs have been completed, except in the hall over the Associate Dining-room, and these will be completed by the 1st of November.

Two swimming-baths have been constructed at the Men's Department and one at the Women's Department. They are supplied with water from the gas wells. The temperature of this water being about 88°, there results a considerable saving, as no water has to be heated for bathing purposes, except in the case of hospital patients.

One of the baths for the Men's Department is located in the rear of the new building, the other in the east end of a structure extending under one roof along the south wall of the big yard in the rear of the original Asylum building. It is of wood, except where the walls of the yard have been utilized on the east, south, and west. It is 30 feet wide. The bath-room occupies 54 feet in length. In the center is a commodious room, 84 feet long, which will be used for a sitting-room and reading-room. It has been of great service as a dormitory during the progress of renovating the old building. The rest of the structure is a shed 70 feet long, open to the yard.

In the same yard a substantial and good-looking pavilion, 36 x 144 feet, with benches and card tables, has replaced the old dilapidated shed. While engaged in building these baths the idea occurred to the Superintendent to drain the basements and the hollow or blind slough near the dairy by laying pipe to connect them with the outfall pipe leading from the baths. The result is very satisfactory, as it furnishes a complete means of drainage for the whole premises.

The bath for the Women's Department is in what is known as the middle yard. In order that the patients in the south wing might get to the bath without passing through the center, a hallway has been made connecting this wing with the yard. The yard has been laid out in walks, flower-beds, and grass-plats.

Two of the attics north of the center in the Women's Department have been made into well-lighted, well-ventilated, and comfortable halls that will accommodate about 35 additional patients. It is purposed to do the same with the corresponding attics on the south side, giving room for 20 additional patients. Although the conditions are not quite so favorable, similar provision could be made, if necessity should demand it, in the attics of the new building of the Men's Department, which would accommodate about 150 additional patients.

The tanks have been removed from the fourth floor of the Women's Department to the attic rooms in the four corners and in the center, so as to give sufficient water pressure on that floor.

The attendants' dining-room at the same department used to be a dark, cold place, lighted only from the north. By removing a short hall on the south side, good light and ventilation have been secured, and the room, painted and suitably furnished, has been made wholesome and cheerful.

A room on the second floor in the center of the new building, Men's Department, has been suitably fitted up and furnished for laboratory and pathological work.

A greenhouse, 60 feet long and 20 feet wide, has been built about 150 feet south of the main avenue which runs in front of the Physicians' residences, and about 175 feet west of the avenue running in front of the original Asylum building. The work was done exclusively by patients, and almost all the material was from structures that had been torn down. It is an attractive feature of the place.

ENGINES, PUMPS, AND MACHINERY.

An engine-room has been built at the Men's Department to accommodate a 30 horse-power Union gas engine and a No. 8½ Electric pump. This engine furnishes power to move the laundry machinery, the lathes and machines in the general mechanic's shop, the pipe-cutting and threading machine, the drills, the grindstone, and the emery wheel in the plumber's shop, the bone-crusher and the hair-picker. It also furnishes power to pump water for the Men's Department and for about two thirds of the grounds that are irrigated by hose, and all the water for internal fire protection, and for one fire hydrant placed in front of the dairy.

This plant is operated by natural gas for about seven months in the year. During the winter months it is shut down, as the gas is more valuable for the direct heating of the halls. The east end of the engine-room has been partitioned off for a blacksmith shop. Here blacksmithing of almost every kind is done, and considerable tool-making, forging, and machine work.

There have been purchased and set up at the power-house of the Women's Department one 20 horse-power Union gas engine and one No. 6½ Electric pump. This engine furnishes all the power to run the laundry machinery and to do the pumping of this department. A large Troy washer has been placed in the laundry at the Men's Department, and a shirt-ironer in the laundry at the Women's Department.

FIRE PROTECTION.

The fire protection system is now in excellent condition in all the buildings. The water-supply for ordinary use has been separated from that to be used in case of fire. The 90-foot tank has been reserved for the latter purpose and gives a very strong head of water. Besides the other appliances already reported, a reel with hose has been placed in each hall, and in the new building of the Men's Department one also on each front landing. In the attics, hose is laid on the floor ready for use. The detached building in which the Steward's office is located is also protected with reels and hose, and the Babcock extinguisher has been placed in the dairy hay barn.

IRRIGATION.

One of the greatest difficulties that the management had to contend with in times past was an insufficient supply of water for irrigating purposes. This has at last been obviated by sinking a shaft, 14 feet in diameter and 21 feet deep, alongside of the old artesian well in the northeast corner of the grounds. This shaft has been rendered water-tight by brick and cement, and a 4-inch centrifugal pump has been placed therein. The pump has been connected 20 feet below the surface of the ground with the well, and also at a depth of 16 feet, with two large excavations, each about 250 feet long and 80 feet wide, the shaft being about midway between the well and the excavations. Outside of the shaft in which the pump is placed, a bricked and cemented sump-well has also been sunk to a depth of 24 feet. The water from the artesian well and also from the excavations flows into this sump-well and is thence pumped to the surface. The supply is about 800 gallons a minute, of which the excavations themselves furnish a large portion.

This plant has solved the question of water for irrigating purposes, and the beneficial effects are already observable this season in the increased acreage in vegetables and alfalfa. The ground between the Men's and Women's Departments, and adjoining the main avenue, has been planted to alfalfa, and ground to the north and east has been utilized for garden purposes. This change has been rendered possible by the new water-supply described above.

A block of land adjoining the Asylum grounds on the southeast has been purchased for \$4,000, and paid for out of the Contingent Fund. This squares that portion of the premises and is a very valuable addition to the property.

An inventory of the real estate, buildings, furnishings, and improvements of the Asylum has been carefully prepared and is herewith submitted. It sums up \$1,096,700.

APPROPRIATIONS NEEDED.

Besides the usual appropriation for the general support of the Asylum, we would recommend an appropriation of \$10,000 for a new gas well, as suggested in the Superintendent's report.

At the present time there are 1,531 patients in this Asylum—the reduced number being necessitated by the rebuilding of the old building of the Men's Department. The lowest per capita of cost that we have been enabled to report you is 35½ cents. Taking this as a basis for calculation, the amount required for the next two years for this Asylum will be, for say 1,550 patients, \$401,682 50.

This Asylum is now fully prepared for the care of 1,700 patients, and at a very light expense the capacity could be increased so that 1,800 or more could be well and comfortably cared for. Should the number of patients materially increase here, the amount of the appropriation required for their support should be increased in like proportion.

We take great pleasure in commending the administration of the Superintendent, Dr. Asa Clark. It has been eminently judicious and conservative, but at the same time progressive. While strict economy has been practiced, this has not been at the expense of the comfort of the patients, and good discipline has been maintained with none of the usual friction.

Respectfully submitted.

H. O. SOUTHWORTH.
ARTHUR THORNTON.
JOSEPH STEFFENS.
J. D. McDOUGALD.
A. McDONALD.

TREASURER'S REPORT.

OFFICE OF SECRETARY OF BOARD OF DIRECTORS, }
 AND TREASURER STATE INSANE ASYLUM, }
 STOCKTON, CAL., September 1, 1896. }

To the Board of Directors of the State Insane Asylum at Stockton:

GENTLEMEN: In accordance with the by-laws of this institution, I respectfully present for your consideration the following report of the receipts and expenditures of the State Insane Asylum at Stockton for two years, ending June 30, 1896:

GENERAL FUND.

RECEIPTS.

1894—June 30—Balance as per last biennial report.....	\$17,061 75
July 7—Received from State.....	8,319 43
July 31—Received from State.....	16,113 19
Sept. 3—Received from State.....	17,693 24
Oct. 1—Received from State.....	17,841 48
Nov. 1—Received from State.....	18,262 68
Dec. 21—Received from State.....	8,441 95
Dec. 26—Received from State.....	9,284 57
1895—Jan. 23—Received from State.....	8,362 80
Feb. 9—Received from State.....	8,538 89
Mar. 11—Received from State.....	15,013 08
Mar. 22—Received from State.....	15,354 23
Mar. 29—Received from State.....	16,620 29
Apr. 23—Received from State.....	8,202 36
May 10—Received from State.....	7,120 37
May 23—Received from State.....	8,334 40
June 4—Received from State.....	8,197 19
June 15—Received from State.....	8,654 31
June 24—Received from State.....	7,815 82
July 5—Received from State.....	8,463 30
Aug. 7—Received from State.....	8,299 69
Sept. 12—Received from State.....	16,824 77
Oct. 11—Received from State.....	16,739 69
Nov. 8—Received from State.....	15,860 80
Dec. 30—Received from State.....	24,838 20
1896—Jan. 22—Received from State.....	24,518 78
Feb. 18—Received from State.....	15,595 30
Mar. 17—Received from State.....	8,064 36
Mar. 25—Received from State.....	7,470 39
Apr. 23—Received from State.....	15,578 82
May ———Received from State.....	14,983 65
June 19—Received from State.....	17,169 09
July 25—Received from State.....	15,278 71
	<hr/> \$434,917 58

DISBURSEMENTS.

Paid on order of the Board of Directors for maintenance, as per vouchers on file, for June, 1894, bills.....	\$15,153 74	
For year ending June 30, 1895	202,223 93	
For year ending June 30, 1896	192,924 28	
Amount transferred to Contingent Fund	24,615 63	
		<u>\$434,917 58</u>

CONTINGENT FUND.

RECEIPTS.

Board and sales, June, 1894.....	\$544 37	
Patients' board for year ending June 30, 1895.....	12,158 80	
Steward's sales for year ending June 30, 1895.....	1,597 82	
Patients' board for year ending June 30, 1896.....	8,870 25	
Steward's sales for year ending June 30, 1896.....	1,477 14	
Transferred from General Fund.....	24,615 63	
		<u>\$49,264 01</u>
Amount overdrawn June 30, 1894, as per Expert's report.....	2,404 07	
		<u>\$46,859 94</u>

DISBURSEMENTS.

Amount for year ending June 30, 1895, as per schedule attached..	\$14,710 43	
Amount for year ending June 30, 1896, as per schedule attached..	21,741 26	
Amount on hand June 30, 1896.....	8,517 30	
Amount shortage in Treasurer Orr's account, as per Expert's report	1,890 95	
		<u>\$46,859 94</u>

Disbursements for Year Ending June 30, 1895.

Improvements and repairs	\$5,483 82	
House furnishing	60 80	
Cows	470 00	
Clothing.....	502 21	
Incidental expenses	2,206 52	
Miscellaneous	31 73	
Drugs and medicines	15 50	
Small groceries	173 84	
Gasoline	88 00	
Horses.....	205 00	
Insurance of boilers	50 00	
Inspecting teas	50 00	
Musical services	168 00	
Mileage of officers	122 00	
Fresh pork	35 60	
Vegetables, fruit, poultry, and eggs.....	185 57	
Printing, stationery, and books.....	43 25	
Surveying	85 00	
Sewer pumping	1,064 30	
Expressage, interest, and exchange	390 48	
Hardware, gas and water pipe fixtures	495 94	
Water	120 00	
Gas machines.....	1,600 00	
Deficiency—water, light, and fuel	1,062 00	
		<u>\$14,710 43</u>

REPORT OF STOCKTON STATE INSANE ASYLUM.

Disbursements for the Year Ending June 30, 1896.

Improvements and repairs	\$8,736 51	
House furnishing.....	455 66	
Cows	220 55	
Clothing.....	334 33	
Incidental expenses.....	1,707 71	
Cap for well	395 00	
Drugs, medicines, and surgical instruments.....	128 65	
Attorney's fees	300 00	
Insurance of boilers	50 06	
Expressage, interest, and exchange.....	1,128 64	
Fire hose and reels	491 90	
Small groceries.....	532 05	
Harness	25 00	
Horses	350 00	
Inspecting teas.....	60 00	
Fresh pork	301 59	
Mileage of officers.....	274 40	
Musical services.....	132 00	
Oil tanks, burners, and pumps	716 00	
Pasturage	40 00	
Vegetables, fruit, poultry, and eggs	349 75	
Printing and stationery	141 10	
Surveying.....	48 00	
Shoeing horses	79 50	
Sewer pumping	607 92	
Water	135 00	
Real estate	4,000 00	
		<u>\$21,741 26</u>

APPROPRIATION FOR WATER, LIGHT, AND FUEL.

RECEIPTS.

1894—July 31—Received from State	\$251 19	
Aug. 31—Received from State	117 83	
Sept. 30—Received from State	1,402 39	
Oct. 31—Received from State	220 81	
Nov. 30—Received from State	1,487 58	
Dec. 31—Received from State	133 74	
1895—Jan. 31—Received from State	396 13	
		<u>\$4,009 67</u>

DISBURSEMENTS.

Paid as per vouchers on file	<u>\$4,009 67</u>
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APPROPRIATION FOR FLOORING FEMALE DEPARTMENT.

RECEIPTS.

1894—July 24—Received from State	\$683 44
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DISBURSEMENTS.

Paid as per vouchers on file	<u>\$683 44</u>
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APPROPRIATION FOR REPAIRS SOUTH WING, MALE DEPARTMENT.

RECEIPTS.

1896—Feb. 26—Received from State	\$7,870 42
Mar. 17—Received from State	2,164 93
Apr. 23—Received from State	446 15
May 23—Received from State	2,548 75
June 19—Received from State	709 42
	<u>\$13,739 67</u>

DISBURSEMENTS.

Paid as per vouchers on file	<u>\$13,739 67</u>
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Respectfully submitted.

JAMES H. HOUGH,
Treasurer.

INVENTORY

OF THE

REAL ESTATE, BUILDINGS, FURNISHINGS, AND IMPROVEMENTS OF THE STOCKTON INSANE ASYLUM.

REAL ESTATE.

Asylum—Grounds proper	\$240,800 00	
Asylum—Cemetery grounds	4,200 00	
		\$245,000 00

BUILDINGS AND IMPROVEMENTS.

(Estimated present value.)

Old building, Men's Department	\$100,000 00	
New building, Men's Department	225,000 00	
Engine-house, tank-houses, laundry, mechanic's shops, Men's Department	27,500 00	
Women's Department, including engine-house, laundry, ironing-room, and sewing-room	250,000 00	
Building, in which are the Steward's office and storerooms, upholsterer's shop, rooms for outside employés, and Ward 23 ..	20,000 00	
Three residences for Physicians	20,000 00	
Stables, carriage-houses, barns, and outbuildings	12,000 00	
Morgue	2,000 00	
Fences	10,000 00	
Artesian, gas, and water wells	100,000 00	
Sewerage system	8,500 00	
		775,000 00

ENGINEER'S DEPARTMENT—MEN'S BUILDING.

2 tubular boilers, 16 x 60	\$1,600 00	
1 Union gas engine, 30 horse-power	1,850 00	
1 steam engine, 20 horse-power	500 00	
2 Worthington duplex pumps	550 00	
1 No. 8½ Richards' triplex power pump	420 00	
1 Davidson's boiler feed pump	320 00	
1 No. 6 Monitor injector	20 00	
Miscellaneous tools	75 00	
		5,335 00

ENGINEER'S DEPARTMENT—WOMEN'S BUILDING.

3 tubular boilers, 16 x 48	\$2,100 00	
1 Union gas engine, 20 horse-power	1,350 00	
1 steam engine, 15 horse-power	400 00	
2 Worthington duplex pumps	550 00	
1 No. 6½ Richards' triple pump	420 00	
2 feed pumps	500 00	
1 injector	20 00	
Miscellaneous tools	75 00	
		5,415 00

Carried forward \$1,030,750 00

Brought forward\$1,030,750 00

LAUNDRY—MEN'S BUILDING.

1 brass cylinder Troy washer	\$590 00	
1 iron cylinder Pacific washer	300 00	
1 32-in. centrifugal extractor	450 00	
1 Troy dry-room	300 00	
Miscellaneous tools	85 00	
		1,725 00

LAUNDRY—WOMEN'S BUILDING.

2 brass cylinder Troy washers	\$800 00	
1 26-in. centrifugal extractor	250 00	
1 mangle	300 00	
1 shirt-ironer	160 00	
Miscellaneous tools	20 00	
		1,530 00

MECHANICAL DEPARTMENT.

General Mechanic's Shop—

Machinery and tools	\$260 00	
Miscellaneous supplies	240 00	
		500 00

Carpenter Shop—

Tools	\$140 00	
Material	50 00	
		190 00

Shoemaker Shop—

Tools	\$100 00	
Material	35 00	
		135 00

Upholster Shop—

Tools	\$30 00	
Material	300 00	
		330 00

Blacksmith Shop—

Tools	\$156 50	
Material	93 50	
		250 00

Plumber Shop—

Tools	\$130 00	
Material	1,120 00	
		1,250 00

Tin Shop—

Tools	\$196 75	
Material	93 25	
		290 00

Broom Shop—

Tools	\$50 00	
Material	20 00	
		70 00

Paint Shop—

Material	\$113 00	
Tools	67 00	
		180 00

Carried forward\$1,037,200 00

Brought forward		\$1,037,200 00
FARM, GARDEN, AND DAIRY.		
13 horses	\$1,000 00	
3 thoroughbred Holstein cows	225 00	
2 thoroughbred bulls	150 00	
1 thoroughbred bull, yearling	50 00	
1 thoroughbred Jersey bull	50 00	
1 thoroughbred Jersey cow	50 00	
45 milch cows	1,575 00	
18 calves	270 00	
60 doz. poultry, at \$4	240 00	
Harnesses	325 00	
Farm wagon and carts	475 00	
2 carriages	625 00	
2 buggies	225 00	
1 spring wagon	100 00	
Farming tools, and implements	790 00	
Hay	350 00	
		6,500 00
GENERAL ADMINISTRATION OFFICE.		
Furniture and fixtures	\$850 00	
Library	300 00	
		1,150 00
DRUG STORE.		
Furniture and fixtures	\$260 00	
Drugs	718 00	
Instruments	192 00	
		1,170 00
STEWARD'S OFFICE.		
Furniture and fixtures	\$785 00	
		785 00
MATRON'S OFFICE.		
Furniture	\$395 00	
		395 00
MEN'S DEPARTMENT.		
Fixtures, furniture, and furnishings in halls, attendants' rooms, dining-rooms, kitchen, and bakery	\$25,000 00	
		25,000 00
WOMEN'S DEPARTMENT.		
Fixtures, furniture, and furnishings in halls, attendants' rooms, dining-rooms, and kitchen	\$20,000 00	
		20,000 00
PHYSICIANS' RESIDENCES.		
Furniture and furnishings	\$4,500 00	
		4,500 00
		<u>\$1,096,700 00</u>
RECAPITULATION.		
Real estate	\$245,000 00	
Buildings	666,500 00	
Gas and water wells	100,000 00	
Sewerage system	8,500 00	
Machinery, tools, and implements	17,200 00	
Furniture and furnishings	59,500 00	
		<u>\$1,096,700 00</u>

REPORT OF MEDICAL SUPERINTENDENT.

COVERING THE BIENNIAL PERIOD ENDING JUNE 30, 1896.

To the Directors of the State Insane Asylum at Stockton, Cal.:

GENTLEMEN: As required by law, I hereby submit my annual report of the accounts and the statistical tables showing the general condition of the Asylum for the year ending June 30, 1896. I have embodied herein the tables contained in the report for the year ending June 30, 1895, already submitted; so that this report virtually covers the biennial period of the forty-sixth and forty-seventh fiscal years, for which a report is due from your honorable Board to his Excellency the Governor.

The following summary of movement of patients for the two years shows that at the beginning of the former year there were 1,523 patients under the control of the Asylum; that the number admitted during the year was 213, making the whole number under care and treatment 1,736; of this number 71 were discharged as recovered, 20 as improved, 4 as unimproved, and 5 as not insane; 137 died and 6 escaped, leaving 1,493 patients on June 30, 1895, a decrease of 30. In the latter year the number admitted was 252; making the whole number under care and treatment 1,745; of this number there were discharged as recovered 91, as improved 27, and as unimproved 3; 136 died and 16 escaped, leaving 1,472 patients under the control of the Asylum on June 30, 1896, a decrease of 21.

SUMMARY OF MOVEMENT OF PATIENTS.

	1894-95.			1895-96.		
	Males.	Females.	Total.	Males.	Females.	Total.
Number of patients at beginning of fiscal year ----	1,065	458	1,523	1,036	457	1,493
Admitted during the years ----	160	53	213	180	72	252
Whole number under care and treatment ----	1,225	511	1,736	1,216	529	1,745
Discharged recovered ----	53	18	71	77	14	91
Discharged improved ----	18	2	20	14	13	27
Discharged unimproved ----	2	2	4	3	0	3
Discharged not insane ----	5	0	5	0	0	0
Died ----	105	32	137	98	38	136
Escaped ----	6	0	6	16	0	16
Total number discharged, died, and escaped ----	189	54	243	208	65	273
Number remaining at close of fiscal year ----	1,036	457	1,493	1,008	464	1,472

The following table of general statistics, showing the whole number of admissions, discharges, deaths, escapes, etc., from 1851, has been enlarged and made more valuable at the cost of considerable painstaking labor, by segregating the male and female and the native and foreign admissions, and by separating the "discharged uncured" into improved and unimproved, and also by adding a column for the per capita cost per diem. The improved and unimproved discharges and the per capita cost, however, are not given for the years prior to 1861, because until that year the records and accounts were not kept in such a way as to furnish the necessary data.

It will be seen that there have been admitted to the Asylum, 10,729 men and 3,287 women; about $3\frac{1}{4}$ times as many of the former as of the latter. For the first decade the ratio was nearly $5\frac{1}{2}$ to 1; for the second decade it was not quite $3\frac{1}{2}$ to 1; for the third decade it was a little more than $2\frac{3}{4}$ to 1; for the fourth decade it was $3\frac{1}{2}$ to 1; and for the last six years it was slightly more than $3\frac{1}{2}$ to 1. There were, however, remaining in the Asylum on June 30, 1896, 1,008 men and 464 women, only $2\frac{1}{6}$ to 1. This shows that there has been a larger outgo of men than of women. This has been chiefly by discharge. When men become sufficiently restored to be no longer dangerous to themselves or to others, they may safely be discharged to find employment, whereas women should be fully restored, or else have relatives or friends willing to care for them, before their discharge would be proper.

This table further shows that there were committed 7,883 foreign born, 5,525 native born, and 608 of unknown nationality. This indicates that the ratio of foreign to native born is slightly more than $1\frac{2}{3}$ to 1. I think, however, that the real ratio is somewhat greater; for, leaving out the first thirteen years, in which the records are quite defective in this matter, noticeably in 1857, 1861, and 1862, the ratio will be found to be about $1\frac{1}{2}$ to 1. If the "unknown" were distributed in this ratio, the number of native born would be 5,770 and of foreign born 8,246, which are probably close approximations to the real numbers. The number remaining on June 30, 1896 (as will be seen from the second following table), of foreign born was 897 and of native born 541, a ratio of $1\frac{2}{3}$ to 1.

There have been discharged as recovered 6,253, as improved 955, and as unimproved 442; but this statement will be misleading unless certain facts are remembered. One might think that there has been an unwarranted number of patients discharged as unimproved, but over 300 of these were transfers to the other Asylums. It is also to be noted that all the discharges for the first ten years are recorded as recovered, and the apparent ratio of recoveries to admissions is 44.61%. This is probably not correct. Taking the admissions and recoveries from 1865 the ratio of recoveries to admissions will be found to be 41%. Using this as a basis of calculation, the number of recoveries should be about

5,747. In my opinion, however, 41%, even, is too high for full recoveries. The ratio for the last four years has been only 34.59%.

The average annual per cent of deaths to whole number treated has been 7.84.

The column of per capita cost per diem shows a steady and almost uniform decrease from 51 cents to 35½ cents. This is owing, in part at least, to a corresponding regular cheapening of supplies during the past thirty years.

The usual tabular statements follow and furnish the ordinary statistical information. They do not seem to require any special comment. I will repeat, however, what has been said several times already about Table E, which gives the causes of insanity as stated in the commitments, that it has little scientific value. The examination of persons said to be insane is generally made by physicians who have had no previous personal knowledge of them and with slight means of ascertaining the true history of the cases, especially during the short time occupied in the examination. Heredity is the underlying cause, I believe, in the majority of cases. In some the insanity develops without any apparent exciting cause; in most, however, some untoward event in conjunction with the ordinary changes and chances of life, which other people are able to withstand, is sufficient to disturb the unstable mental condition resulting from inherited nerve-degeneracy.

NUMBER OF ADMISSIONS, DISCHARGES, DEATHS, ETC., FROM THE FOUNDATION OF THE ASYLUM TO JULY 1, 1896.

Years.	Admissions.				Discharges.			Deaths.	Escapes.	Resident at End of Year.	Increase.	Decrease.	Whole Number Treated.	Percentage of Recoveries to Admissions.	Percentage of Deaths to the Number Treated.	Per Capita Cost per Diem—Cents.		
	Males.	Females.	Native.	Foreign.	Unknown.	Total.	Recovered.										Improved.	Unimproved.
1851	13	0	8	5	0	13	6	0	0	6	6		13	46.16	7.69			
1852	113	11	59	65	0	124	58	0	0	56	40		130	46.77	7.69			
1853	151	9	83	74	3	160	108	0	12	102	40		222	67.50	5.40			
1854	176	23	100	95	4	199	145	0	21	134	32		304	72.86	6.90			
1855	183	30	104	100	9	213	168	0	18	162	28		348	78.80	5.07			
1856	196	36	113	107	12	232	199	0	23	172	10		394	81.46	5.83			
1857	196	32	59	78	91	228	179	0	28	188	16		400	78.50	7.00			
1858	201	43	93	145	6	244	112	0	32	273	85		432	45.90	7.40			
1859	233	43	112	162	2	276	124	0	49	370	97		549	41.92	8.91			
1860	191	57	104	142	2	248	137	0	54	417	47		618	55.24	8.73			
1861	251	63	79	158	77	314	210	26	49	416		1	731	66.88	6.70	51.0		
1862	243	58	98	151	52	301	120	14	65	499	83		717	39.86	9.06	50.0		
1863	197	55	82	147	23	252	92	13	47	583	84		751	36.50	6.26	51.2		
1864	153	66	64	153	2	219	102	19	82	581		2	802	46.57	10.29	50.2		
1865	190	78	103	158	7	268	93	11	82	632	51		849	34.70	9.66	46.0		
1866	211	68	130	139	10	279	131	8	62	693	61		911	46.95	6.81	45.5		
1867	266	87	127	179	7	313	125	14	89	769	76		1,006	40.00	8.80	45.0		
1868	287	100	121	252	14	387	146	13	134	853	84		1,156	37.73	11.59	45.0		
1869	380	102	179	283	20	482	225	16	159	920	67		1,335	46.68	11.91	46.0		
1870	432	130	167	380	15	562	221	30	156	1,047	127		1,482	39.32	10.55	46.0		
1871	370	153	174	333	16	523	245	24	176	1,090	43		1,570	46.84	11.21	44.0		
1872	359	147	159	322	25	506	240	30	183	1,123	33		1,596	47.43	11.78	43.0		
1873	295	106	131	252	18	401	185	18	152	1,156	33		1,524	46.13	9.97	47.0		
1874	385	139	174	330	20	524	209	40	178	1,224	68		1,680	39.88	10.59	43.0		
1875	447	168	198	399	18	615	259	63	181	1,302	78		1,839	41.95	9.84	44.0		
1876	299	115	161	232	21	414	252	52	172	1,204		88	1,716	61.26	10.03	42.0		
1877	152	49	58	105	8	201	83	29	100	1,195		19	1,415	41.29	7.06	41.0		
1878	167	52	95	121	3	219	80	18	106	1,202	7		1,414	36.53	7.49	43.0		
1879	79	27	52	50	4	106	58	14	100	1,127		75	1,308	54.71	7.64	40.0		
1880	84	30	58	56	0	114	40	8	72	1,116		11	1,241	35.08	5.80	41.5		
1891	121	28	75	71	3	149	54	15	92	1,102		14	1,265	36.24	7.19	39.0		

1882	144	35	81	95	3	179	71	11	0	93	11	1,095	89	7	1,281	39.67	7.27	41.2
1883	189	69	122	132	4	258	68	9	1	86	5	1,184	89	---	1,353	26.35	6.35	43.9
1884	207	57	117	143	4	264	113	16	6	87	11	1,215	31	---	1,418	42.80	6.01	41.0
1885	259	82	147	185	9	341	60	13	6	87	11	1,379	164	---	1,556	17.60	5.59	41.0
1886	374	130	198	294	12	504	201	33	12	135	16	1,486	107	---	1,883	39.86	7.17	37.2
1887	328	86	172	228	14	414	179	18	9	133	8	1,553	67	---	1,900	43.23	7.00	38.0
1888	339	124	184	267	12	463	214	15	4	130	7	1,646	93	---	2,016	46.22	6.00	36.9
1889	393	136	237	276	16	529	194	44	215	134	8	1,580	8	66	2,175	36.67	8.46	34.6
1890	242	84	140	178	8	326	138	45	19	111	5	1,588	8	15	1,902	42.33	5.82	38.3
1891	236	58	145	163	6	314	161	46	14	96	12	1,573	33	---	1,906	51.27	5.05	38.9
1892	224	56	139	141	0	280	82	42	13	101	9	1,606	51	---	1,853	29.29	5.45	37.3
1893	275	77	168	180	4	352	121	38	11	120	11	1,657	51	---	1,958	34.28	6.13	36.6
1894	178	63	94	138	9	241	78	103	37	150	7	1,523	---	134	1,898	32.37	7.90	36.2
1895	160	53	117	95	1	213	76	20	4	137	6	1,493	---	30	1,736	35.68	7.89	36.4
1896	180	72	114	124	14	252	91	27	3	136	16	1,472	---	21	1,745	36.11	7.78	35.5
Totals	10,729	3,287	5,525	7,883	608	14,016	6,253	955	442	4,426	468	---	1,955	483	---	---	---	---

NATIVITY OF PATIENTS IN THE ASYLUM ON JUNE 30, 1895,
AND JUNE 30, 1896.

Nativity.	June 30, 1895.			June 30, 1896.		
	Males	Females	Total	Males	Females	Total
United States.....	358	196	554	352	189	541
Ireland.....	134	119	253	125	117	242
Germany.....	133	49	182	131	53	184
Great Britain.....	71	16	87	66	17	83
China.....	84	1	85	82	1	83
Sweden and Norway.....	32	12	44	29	14	43
France.....	32	11	43	29	11	40
Italy.....	34	1	35	34	4	38
Mexico.....	22	7	29	18	10	28
Switzerland.....	21	4	25	23	4	27
Denmark.....	23	3	26	21	5	26
British North America.....	18	7	25	19	7	26
Portugal.....	17	4	21	17	4	21
Austria-Hungary.....	19	1	20	17	1	18
Japan.....	5	0	5	7	0	7
India.....	2	0	2	5	0	5
Russia.....	2	2	4	2	2	4
Australia and New Zealand.....	3	1	4	3	1	4
South America.....	3	1	4	3	1	4
Poland.....	1	3	4	1	2	3
Spain.....	2	0	2	2	0	2
Armenia.....	1	1	2	0	2	2
Finland.....	2	0	2	1	0	1
Holland.....	1	1	2	0	1	1
Belgium.....	1	1	2	1	0	1
Asia Minor.....	1	0	1	1	0	1
Algiers.....	1	0	1	1	0	1
West Indies.....	1	0	1	1	0	1
Central America.....	0	1	1	0	1	1
Unknown.....	12	15	27	17	17	34
Totals.....	1,036	457	1,493	1,008	464	1,472
<i>Recapitulation.</i>						
United States.....	358	196	554	352	189	541
Foreign countries.....	666	246	912	639	258	897
Unknown.....	12	15	27	17	17	34
Totals.....	1,036	457	1,493	1,008	464	1,472

TABLE A.

Counties from which Patients were Admitted.

Counties.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Alameda	7	7	14	7	0	7
Amador	2	0	2	1	1	2
Butte	6	3	9	11	2	13
Calaveras	10	1	11	3	0	3
Contra Costa				1	0	1
El Dorado	1	0	1	4	1	5
Fresno	18	5	23	12	6	18
Glenn				1	0	1
Inyo				0	1	1
Kern	2	0	2	5	3	8
Kings	2	0	2	1	0	1
Lassen				2	0	2
Los Angeles	1	0	1			
Madera	1	0	1	3	0	3
Mariposa	4	0	4	7	1	8
Merced	5	3	8	6	0	6
Monterey	1	0	1	2	0	2
Placer	4	0	4	5	1	6
Plumas	1	0	1			
Sacramento	19	6	25	16	5	21
San Francisco	19	14	33	30	26	56
San Joaquin	26	11	37	30	14	44
Santa Cruz	0	1	1	1	0	1
Santa Clara	0	1	1			
San Mateo				1	0	1
Shasta	1	0	1	1	0	1
Siskiyou				4	0	4
Sierra				1	0	1
Solano				0	1	1
Sonoma				1	0	1
Stanislaus	4	0	4	1	2	3
Sutter	3	0	3	1	0	1
Tehama				1	0	1
Tulare	8	0	8	9	6	15
Tuolumne	2	0	2	7	1	8
Yuba	3	1	4	3	1	4
State Prison, Folsom	3	0	3	1	0	1
State Prison, San Quentin	7	0	7	1	0	1
Totals	160	53	213	180	72	252

TABLE B.

Nativity of those Admitted.

Nativity.	1894-95.			1895-96.		
	Males.	Females.	Total.	Males.	Females.	Total.
<i>United States.</i>						
Arkansas	1	0	1			
California	16	10	26	22	13	35
Columbia, District of	1	0	1	0	1	1
Connecticut	2	0	2			
Illinois	3	0	3	7	2	9
Indiana	3	0	3	3	0	3
Iowa	2	0	2	2	2	4
Kansas	1	1	2			
Kentucky	2	1	3	2	0	2
Louisiana	0	1	1			
Maine	1	0	1	4	1	5
Maryland				4	0	4
Massachusetts	5	0	5	3	1	4
Michigan	0	1	1	0	1	1
Minnesota				1	0	1
Missouri	4	2	6	3	0	3
New York	9	4	13	6	0	6
New Jersey	1	0	1			
New Hampshire	3	1	4			
North Carolina	1	1	2	3	0	3
Ohio	5	1	6	2	1	3
Oregon	1	0	1			
Pennsylvania	6	2	8	5	0	5
Rhode Island	1	0	1			
Tennessee				1	0	1
Texas				2	0	2
Utah	0	1	1			
Vermont	0	1	1	1	0	1
Virginia	2	0	2	4	0	4
Washington				0	1	1
Wisconsin	2	0	2	3	1	4
United States	12	6	18	9	3	12
Unknown				9	5	14
Totals	84	33	117	96	32	128
<i>Foreign Countries.</i>						
Armenia	1	0	1	0	1	1
Austria	3	0	3	1	1	2
Asia Minor	1	0	1			
Belgium	1	0	1			
British North America	5	1	6	7	2	9
Chili				1	0	1
China	8	0	8	8	1	9
Denmark	2	1	3	1	2	3
England	4	0	4	5	2	7
France	3	2	5	1	2	3
Germany	11	4	15	16	7	23
Holland	0	1	1			
India				2	0	2
Ireland	14	8	22	12	9	21
Italy	9	1	10	10	4	14
Japan				3	0	3
Mexico	3	1	4	2	4	6
Portugal	2	1	3	1	0	1
Russia				1	0	1
Scotland				3	1	4
Spain				0	1	1
Sweden and Norway	4	0	4	3	3	6
Switzerland	3	0	3	7	0	7

TABLE B—Continued.

Nativity.	1894-95.			1895-96.		
	Males.....	Females..	Total.....	Males.....	Females..	Total.....
<i>Foreign Countries—Continued.</i>						
Turkey.....	1	0	1			
Unknown.....	1	0	1			
Totals.....	76	20	96	84	40	124
<i>Recapitulation.</i>						
United States.....	84	33	117	87	27	114
Foreign countries.....	75	20	95	84	40	124
Unknown.....	1	0	1	9	5	14
Totals.....	160	53	213	180	72	252

TABLE C.

Age when Insanity First Appeared in those Admitted.

Ages.	1894-95.			1895-96.		
	Males.....	Females..	Total.....	Males.....	Females..	Total.....
Under 10 years.....	3	0	3			
Between 10 and 15 years.....	2	1	3	0	1	1
Between 15 and 20 years.....	6	6	12	11	3	14
Between 20 and 25 years.....	15	9	24	13	8	21
Between 25 and 30 years.....	23	5	28	25	13	38
Between 30 and 35 years.....	27	9	36	25	15	40
Between 35 and 40 years.....	24	5	29	28	10	38
Between 40 and 45 years.....	13	7	20	17	7	24
Between 45 and 50 years.....	11	3	14	16	1	17
Between 50 and 55 years.....	8	2	10	11	3	14
Between 55 and 60 years.....	7	1	8	6	2	8
Between 60 and 65 years.....	5	2	7	7	3	10
Between 65 and 70 years.....	10	1	11	2	0	2
Between 70 and 75 years.....	3	1	4	7	2	9
Between 75 and 80 years.....	3	1	4	1	0	1
Between 80 and 85 years.....				1	0	1
Between 95 and 100 years.....				2	0	2
Unknown.....				10	2	12
Totals.....	160	53	213	180	72	252

TABLE D.

Age at Time of Admission.

Ages.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Between 10 and 15 years	1	0	1			
Between 15 and 20 years	0	3	3	1	1	2
Between 20 and 25 years	20	1	27	16	6	22
Between 25 and 30 years	17	6	23	10	6	16
Between 30 and 35 years	19	9	28	32	16	48
Between 35 and 40 years	35	5	40	28	10	38
Between 40 and 45 years	14	5	19	19	12	31
Between 45 and 50 years	13	7	20	15	2	17
Between 50 and 55 years	6	2	8	21	2	23
Between 55 and 60 years	10	0	10	5	3	8
Between 60 and 65 years	6	4	10	6	6	12
Between 65 and 70 years	11	1	12	6	2	8
Between 70 and 75 years	4	1	5	6	1	7
Between 75 and 80 years	4	2	6	3	1	4
Between 80 and 85 years	0	1	1	1	0	1
Between 85 and 90 years				1	0	1
Over 100 years				0	2	2
Unknown				10	2	12
Totals	160	53	213	180	72	252

TABLE E.

Cause of Insanity as Stated in Commitments.

Cause.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Abuse from drunken husband				1	1	2
Age and epilepsy				1	0	1
Age and drink				0	1	1
Alcohol				5	0	5
Alcohol and morphine	1	0	1			
Bad habits				1	0	1
Brooding over imaginary wrongs				1	0	1
Business excitement and loss of sleep				1	0	1
Business and family trouble				1	0	1
Business trouble and alcohol				1	0	1
Business trouble				1	0	1
Business reverses and fever	1	0	1			
Cephalalgia, chronic	1	0	1			
Change of life	0	1	1			
Child-birth	0	2	2	0	3	3
Cigarette smoking and masturbation				1	0	1
Congenital mental weakness	1	0	1			
Cocaine and morphine	1	0	1	1	0	1
Death of his woman				1	0	1
Death of mother				0	2	2
Decline of life				0	1	1
Depression of spirits	1	0	1			
Depression of postparietal bone and drink				1	0	1
Drink				2	1	3
Ear trouble and resulting cerebral lesion				1	0	1
Epilepsy	4	0	4	3	0	3
Epilepsy and cerebral hemorrhage				1	0	1
Excessive drink and debauchery				1	0	1
Excessive drink and self-abuse				1	0	1
Excessive sexual indulgence	1	0	1			
Exhaustion	1	0	1			
Exposure while wrecked in Arctic region				1	0	1
Exposure and loss of money				1	0	1
Exposure	1	0	1			
Fall on head				0	1	1
Fall from train	1	0	1			
Family trouble	1	2	3	1	0	1
Fears that neighbors cause evil to family				0	1	1
Financial and other trouble	5	0	5			
Financial trouble				1	1	2
General dissipation	2	1	3			
Grief				0	1	1
Head injury and morphine-habit				3	0	3
Head injury and loss of money	1	0	1			
Heredity	3	4	7	3	2	5
Heredity and masturbation				1	0	1
Homesickness and extreme nervousness	0	1	1			
Ideal love and religion				1	0	1
Impaired health				1	0	1
Imprisonment	1	0	1			
Injury to head	8	0	8	2	0	2
Injury to head and heredity				1	0	1
Injury to head and typhoid fever	1	0	1			
Insanity of husband	0	1	1			
Intemperance	10	1	11	1	0	1
Intemperance and masturbation	1	0	1			
Lack of work				1	0	1
La grippe	0	1	1			
Loss of child	0	1	1			
Loss of husband	0	1	1			
Loss of money				3	0	3

TABLE E—Continued.

Cause.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Masturbation	8	1	9	15	1	16
Matrimonial trouble	1	0	1			
Mental excitement				1	0	1
Mental eccentricity				1	0	1
Mental worry				2	0	2
Menopause	0	1	1			
Menstrual trouble				0	1	1
Money matters				1	0	1
Morphine				1	0	1
Mother's death				1	0	1
Old age				1	1	2
Old wound and la grippe				1	0	1
Opium, excessive use of	2	0	2			
Opium, quitting use of	1	0	1			
Overstudy	0	1	1	1	1	2
Overwork and worry	1	0	1	2	1	3
Puerperal condition	0	1	1	0	4	4
Religious excitement	6	0	6	4	1	5
Senility	3	1	4	1	0	1
Sickness and death of children				0	1	1
Sickness and failure in business	1	0	1			
Social parties	0	1	1			
Spinal disease	1	0	1			
Spiritualism	1	0	1	1	0	1
Strike	1	0	1			
Sunstroke	2	0	2	3	0	3
Sunstroke and kick by a horse	1	0	1			
Suppressio mensium	0	1	1	0	1	1
Syphilis				1	2	3
Syphilis tertiary	1	0	1			
Trouble with sister				1	0	1
Trouble with fellow-workwomen				0	1	1
Tuberculosis	1	0	1	1	0	1
Use of narcotics				2	0	2
Uterine irritation	0	1	1			
Wandering life				1	0	1
Want	1	0	1			
Worrying about property				0	1	1
Unknown causes	81	29	110	91	41	132
Totals	160	53	213	180	72	252

TABLE F.

Classification of those Admitted.

Classes.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Mania, acute	27	12	39	35	7	42
Mania, chronic	8	7	15	14	5	19
Mania, religious	8	0	8	9	0	9
Mania, acute alcoholic	7	1	8			
Mania, chronic alcoholic	3	1	4			
Mania, recurrent	5	3	8	13	4	17
Mania, puerperal	0	2	2	0	2	2
Melancholia, acute	10	3	13	12	4	16
Melancholia, chronic				2	4	6
Melancholia, recurrent	2	0	2	3	0	3
Melancholia, precordial				1	0	1
Melancholia, hypochondriacal	1	0	1			
Melancholia, stuporous				1	0	1
Paranoia, acute	11	4	15	10	5	15
Paranoia, chronic	30	8	38	15	22	37
Paranoia, chronic, with exaltation				1	0	1
Paranoia, hypochondriacal				1	0	1
Dementia, primary	4	2	6	5	0	5
Dementia, secondary	0	5	5	2	1	3
Dementia, senile	7	3	10	9	9	18
Dementia, apoplectic	4	1	5	3	0	3
Dementia, paralytic	1	0	1	12	1	13
Dementia, alcoholic				1	0	1
Epilepsy	7	0	7	5	2	7
Epilepsy, with post epileptic moria	1	0	1			
Epilepsy, procursive				1	0	1
General paresis	1	0	1	1	0	1
Imbecility	5	1	6	9	0	9
Idiocy	3	0	3	1	0	1
Insanity of Bright's disease	1	0	1	0	1	1
Insanity of tuberculosis	1	0	1			
Insanity, traumatic	1	0	1			
Insanity, toxic	1	0	1	5	0	5
Insanity of gestation				0	1	1
Insanity, malarial				1	0	1
Delirium, acute				0	2	2
Alcoholism				5	2	7
Opio-mania	5	0	5			
Moral depravity				1	0	1
Simulation				1	0	1
Not insane	6	0	6	1	0	1
Totals	160	53	213	180	72	252

TABLE G.
Civil Condition of those Admitted.

Civil Condition.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Married	32	19	51	41	40	81
Single	97	17	114	114	19	133
Widowers	7		7	5		5
Widows		11	11		7	7
Divorced				0	3	3
Unknown	24	6	30	20	3	23
Totals	160	53	213	180	72	252

TABLE H.
Occupation of those Admitted.

Occupations.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Agent	1	0	1			
Artist	0	1	1			
Asylum attendant	1	0	1			
Attorney at law	1	0	1			
Barber	2	0	2	2	0	2
Baker				3	0	3
Barkeeper	1	0	1			
Billposter	1	0	1			
Blacksmith				3	0	3
Bookkeeper				1	0	1
Brewer				1	0	1
Bricklayer				1	0	1
Butcher				1	0	1
Carpenter	5	0	5	4	0	4
Capitalist				1	0	1
Cattle business				1	0	1
China preacher				1	0	1
Clerk				2	0	2
Coal-dealer	1	0	1			
Cook				2	0	2
Contractor				1	0	1
Dentist	1	0	1			
Dairyman				1	0	1
Dancing-teacher				1	0	1
Dishwasher				1	0	1
Domestic	0	7	7			
Electrician				1	0	1
Engineer				1	0	1
Factory-hand				0	1	1
Farmer	20	0	20	15	0	15
Farm laborer	2	0	2	1	0	1
Gardener	1	0	1	4	0	4
Gambler	2	0	2			
Gentleman				1	0	1
Guard at State Prison	1	0	1			
Gunsmith				1	0	1

TABLE H—Continued.

Occupations.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Harnessmaker	1	0	1			
Hotelkeeper	1	0	1			
Horseshoer	1	0	1			
Housecleaner				1	0	1
Housekeeper				0	5	5
Housekeeper and cook				0	1	1
Housemaid				0	3	3
Housewife	0	23	23	0	38	38
Junkman	1	0	1			
Laborer	63	0	63	52	0	52
Lather	1	0	1	1	0	1
Lock and gunsmith				1	0	1
Lodginghouse-keeper	0	1	1			
Longshoreman				1	0	1
Lumberman				1	0	1
Machinist				1	0	1
Marble-cutter	1	0	1			
Marine engineer				1	0	1
Merchant	1	0	1	3	0	3
Miller				1	0	1
Miner	11	0	11	12	0	12
Molder	1	0	1			
Nailer	1	0	1			
Ox-driver				1	0	1
Painter	2	0	2	3	0	3
Pastor				1	0	1
Papermaker				1	0	1
Penman and engraver	1	0	1			
Physician	1	0	1	2	0	2
Porter				1	0	1
Preacher	1	0	1			
Printer	2	0	2	1	0	1
Prostitute	0	1	1			
Rancher				4	0	4
Restaurant-keeper				1	0	1
Saddler				1	0	1
Sailor	4	0	4			
Salvationist				1	0	1
Seamstress				0	1	1
Servant-girl				0	4	4
Shepherd	1	0	1	3	0	3
Shoemaker	1	0	1	3	0	3
Shirtmaker				0	1	1
Ship-carpenter				1	0	1
Solicitor for newspaper	1	0	1			
Steamboating				1	0	1
Student				1	0	1
Switchman	1	0	1			
Tailor	2	0	2	1	0	1
Tailoress				0	1	1
Teacher	0	3	3			
Telegraph operator				1	0	1
Traveler				1	0	1
Upholsterer				1	0	1
Vendor of matches				0	1	1
Vegetable-dealer				1	0	1
Waiter	1	0	1			
Washerwoman				0	1	1
Well-borer				1	0	1
No occupation	7	11	18	8	8	16
Unknown	12	6	18	14	7	21
Totals	160	53	213	180	72	252

TABLE I.

Causes of Death.

Causes.	1894-95.			1895-96.		
	Males	Females	Total	Males	Females	Total
Tuberculosis	19	14	33	24	14	38
Pneumonia	12	1	13	11	4	15
Acute bronchitis	3	0	3	2	0	2
Chronic bronchitis	1	0	1			
Pleurisy	1	0	1	0	1	1
Chronic laryngitis				0	1	1
Thrombosis of the middle cerebral artery				1	0	1
Cardiac diseases	4	1	5	4	1	5
Aortitis with thrombosis				0	1	1
Cirrhosis of liver	1	0	1	2	0	2
Acute enteritis	9	1	10	2	0	2
Chronic enteritis	6	1	7	7	3	10
Chronic peritonitis	1	0	1	1	0	1
Perforative peritonitis				0	1	1
Intestinal obstruction	1	1	2			
Intestinal hemorrhage				1	0	1
Nephritis	14	2	16	5	2	7
Purulent cystitis				1	0	1
Apoplexy	10	3	13	10	2	12
General paresis	6	0	6	7	0	7
Epilepsy	4	4	8	3	2	5
Cerebral meningitis	1	0	1	2	0	2
Pachymeningitis hemorrhagica				0	1	1
Embolism of brain	1	0	1			
Diabetes				2	0	2
Carcinoma	0	1	1	2	1	3
Septicæmia	1	0	1			
Chronic opium-poisoning	1	0	1			
Lead-poisoning				1	0	1
Acute delirium	1	0	1	1	2	3
Exhaustion (Acute mania)	1	1	2			
(Chronic mania)	0	2	2			
(Acute paranoia)	1	0	1			
(Acute melancholia)	1	0	1			
(Dementia)				1	0	1
Senility	3	0	3	5	2	7
Leuchæmia	1	0	1			
Idiopathic anæmia				1	0	1
Suffocation in epilepsy				1	0	1
Suicide	1	0	1	1	0	1
Totals	105	32	137	98	38	136

The following items of interest have been gathered from the daily reports of the Supervisor and the Matron:

The daily average for the past year of patients under restraint has been 36, which is only 2.41% of the average whole number of patients. This must surely be regarded as a very favorable showing, especially when the condition of those to whom restraint is applied is taken into consideration; namely, feeble and demented persons who are liable to fall out of bed at night; those who pick and tear their clothing and strip themselves, as well as those who are violent and dangerous. The lightest kind of restraint only is used, except for the last-mentioned class.

The average number of patients employed in the halls daily was 195; the average number of male patients employed in the several offices, workshops, kitchens, etc., and in the stable and dairy, was 62; of female patients employed in the sewing-room, laundry, and ironing-room, the average number was 36; and the average number of men employed on the grounds was 100. This sums up 393 patients employed.

It is conceded by all who are competent to judge that among remedial agents in the treatment of the insane useful labor, skillfully directed, ranks first. It serves not only to break the monotony of Asylum life, but also to divert the mind from delusional notions and to promote self-respect. Patients who have been employed during the day are far more likely to sleep at night and to leave undisturbed the rest of others. Of course, it requires a larger number of attendants to care for patients under such conditions than would be needed to herd them within the buildings and small inclosures. Besides these advantages, the labor of the patients more than counterbalances the additions to the payroll. I refer to this as a justification in part for what may have been regarded by some as an unnecessarily large payroll.

The average number of patients having parole of the grounds was 227. In this number are included the 62 mentioned above as working in the offices, workshops, etc. A large number of the workmen occupy Halls 7 and 16, the doors of which are kept unlocked in the daytime, thus allowing all freedom compatible with Asylum life. The benefits derived from this amount of employment and degree of freedom are illustrated by the quietude prevailing in and about the Institution now, as compared with times gone by, when the conditions necessitated a more limited parole and a less extended employment of the labor of patients. In this connection it should be noted that, while the average annual number of escapes from the beginning has been 13, for the past three years it has been only 10, showing that this greater amount of freedom has not been a cause of increase in the number of escapes.

Besides, in reality, the escapes are mainly from those whom it is thought necessary to confine within the buildings.

The tables following show the transactions of the Steward's Department. It will be seen that the total expenditure for the maintenance of the patients, for the ordinary repairs, and for the payroll of the officers and employes during the two fiscal years, ending June 30, 1896, were \$395,263 66. This amount is \$9,736 34 less than the appropriation.

The per capita cost per diem for 1894-95 was 36.4 cents, and for 1895-96 was 35.5 cents.

The tables giving the number of articles made in the several workshops show that, besides the repairs and improvements carried on by our mechanics, of which you have already taken note, many indispensable articles of furniture, bedding, clothing, and utensils have been manufactured; and this I believe, of a superior workmanship and at far less cost than if bought in the market.

TABLE No. 1.

Account of Articles Consumed and Expenditures, for the Biennial Period ending June 30, 1896.

Articles.	Value.	
	1894-95.	1895-96.
Flour	\$7,916 26	\$7,526 50
Meat	14,815 18	16,719 83
Sugar	3,693 62	3,463 69
Tea	1,021 75	1,519 00
Syrup	706 13	627 51
Potatoes	2,368 44	2,073 86
Butter	6,695 72	5,043 81
Coffey and chicory	2,535 92	2,940 40
Lard	3 88	
Fish	761 37	748 20
Poultry and eggs	1,260 28	854 03
Beans and peas	900 60	678 87
Cracked wheat, rice, oatmeal, and cornmeal	2,772 13	2,332 68
Ice	532 86	580 38
Fruit and vegetables	2,490 95	2,408 51
Salt	151 97	120 86
Vinegar	77 32	69 23
Small groceries	2,045 45	1,587 60
Soap, starch, and potash	1,164 60	1,335 66
Drugs and medicines	1,670 60	1,608 68
Wines and liquors	680 25	612 80
Tobacco	1,791 67	1,694 83
Dry goods	2,986 53	2,916 57
Clothing and hats	3,068 98	4,435 71
Shoes and leather	1,773 82	2,273 50
Blankets	986 04	1,076 78
Furniture, crockery, spoons, and cutlery	2,680 04	3,997 91
Hardware and tinware	1,788 63	2,163 35
Carpeting and matting	1,016 10	328 90
Hay, grain, and feed	2,652 06	2,305 61
Garden-tools and seed	748 98	644 79
Lumber	1,382 70	975 94
Building materials and repairs	4,946 51	4,119 66
Brooms and brushes	413 13	488 96
Books and stationery	425 67	308 78
Gasoline, coal oil, and lubricating oil	186 40	295 12
Paints, oil, and glass	1,475 55	952 46
Fuel	13,499 04	8,168 01
Bedding	512 29	573 81
Castings, pipes, and iron	2,768 29	3,747 03
Payroll	98,235 20	96,349 19
Pay of Directors and Treasurer	1,742 40	1,634 40
Freight and expressage	141 29	97 65
Telegraphing and telephoning	144 86	108 35
Advertising	300 00	300 00
Miscellaneous	1,796 53	1,326 26
Totals	\$201,127 99	\$194,135 67

TABLE No. 2.

Cost of the several Departments, 1894-95 and 1895-96.

Departments.	Cost.	
	1894-95.	1895-96.
Male kitchen and dining-rooms	\$28,287 83	\$28,913 18
Female kitchen and dining-rooms	13,073 20	13,705 84
Male Department	8,007 58	12,030 75
Female Department	5,419 87	3,655 71
Bakery	7,241 29	6,826 02
Laundries	1,312 49	670 52
Engine-houses	14,475 93	8,604 36
Plumber	3,145 32	3,424 37
General mechanic's shop	2,525 91	2,959 99
Building and repairs	6,660 90	6,929 65
Patients' workshops	327 92	289 46
Farm, garden, and stable	2,507 21	1,503 00
Dairy	1,160 58	1,595 37
Drug store	2,339 51	2,244 05
Office	674 77	795 63
Medical Superintendent Asa Clark	869 56	192 87
Assistant Physician J. D. Young	722 53	162 13
Assistant Physician Thos. Phillips	875 00	-----
Assistant Physician A. W. Hoisholt	656 33	211 43
Assistant Physician H. E. Sanderson	566 66	1,200 00
Pay of Directors and Treasurer	1,742 40	1,634 40
Payroll	98,235 20	96,349 19
Advertising	300 00	300 00
Totals	\$201,127 99	\$194,198 97

TABLE No. 3.

Amount of Supplies Purchased and Distributed, and the Balances on Hand at the beginning and the end of each fiscal year.

	1894-95.		1895-96.	
Amount on hand, as per Invoice, at end of fiscal year	\$1,247 93		\$1,339 97	
Amount purchased during fiscal year	99,902 46		94,875 41	
Amount distributed during fiscal year		\$99,810 42		\$94,904 29
Amount on hand at end of fiscal year		1,339 97		1,311 09
Totals	\$101,150 39	\$101,150 39	\$96,215 38	\$96,215 38

TABLE No. 4.

Averages 1894-95 and 1895-96.

Months.	Average No. of Patients Daily.		Average Daily Expenses.		Average Cost per Capita per Day.		Average Cost per Capita per Month.	
	1894-95.	1895-96.	1894-95.	1895-96.	1894-95.	1895-96.	1894-95.	1895-96.
July	1,121	1,497	\$522 41	\$531 52	\$0 34.3	\$0 35.5	\$10 63	\$10 90
August	1,525	1,501	567 72	547 76	37.2	36.5	11 53	11 31
September	1,523	1,508	583 45	534 02	38.3	35.4	11 49	10 62
October	1,522	1,512	578 33	544 88	38.0	36.0	11 78	11 16
November	1,503	1,502	594 35	560 88	39.5	37.3	11 85	11 20
December	1,505	1,501	527 47	521 07	35.0	34.7	10 85	10 76
January	1,506	1,471	506 21	506 56	33.6	34.4	10 41	10 67
February	1,516	1,475	603 05	543 72	39.7	36.8	11 11	10 69
March	1,517	1,488	503 15	502 07	33.1	33.7	10 26	10 46
April	1,516	1,487	555 17	511 52	36.6	34.4	10 98	10 32
May	1,506	1,487	523 61	555 53	34.7	37.4	10 75	11 58
June	1,500	1,480	555 53	508 23	37.0	34.3	11 10	10 30
Yearly average ..	1,513	1,492	\$551 04	\$530 60	\$0 36.4	\$0 35.5	\$11 00	\$10 83

TABLE No. 5.

Articles Made in the Several Shops during the Biennial Period ending June 30, 1896.

GENERAL MECHANIC'S SHOP.

Articles.	No.	Articles.	No.
Sheets (cotton)	1,896	Window shades	198
Canvas sheets	440	Straight jackets	29
Pillowslips	1,865	Canvas shirts	21
Pillowticks	280	Canvas blankets	14
Bedticks	137	Canvas muffs	21
Bedspreads	32	Wristlets	61
Bath-towels	1,314	Anklets	24
Roller-towels	642	Bed straps	32
Ward aprons	48	Body-straps with lock buckles	138
Dining-room aprons	120	Foot-straps	22
Kitchen aprons	132	Leather muffs	12
Carpenters' aprons	7	Leather mittens	12
Linen tablecloths	53	Stationary straps	6
Mangle-sheets	120	Boots, prs.	42
Clothespin-bags	24	Shoes, prs.	26
Napkins	152	Old boots and shoes repaired, prs.	6,661
Awnings	37		

MATTRESS-MAKER AND UPHOLSTERER'S SHOP.

Articles.	No.	Articles.	No.
Mattresses, Hair	148	Reclining lounge	1
Moss	318	Couches, ramie	9
Wool	74	Couches, carpet	8
Fiber	78	Sofas	3
Feather	2	Barber-chair	1
Spring	18	Operating table, leather	1
Pillows, Hair	98	Chairs upholstered	28
Moss	268	Chairs reseatd and rebacked	18
Fiber	148	Rockers reseatd and rebacked	12
Feather	14	Carpet-rockers	14
Single lounges	6	Cushions	24
Carpet lounges	36	Props and bolsters	14
Bed lounge	1	Floor-mats	18

PLUMBER'S SHOP.

Articles.	No.	Articles.	No.
Galv. iron Sinks	11	Galv. iron Oil-pans	6
Steam cookers	3	Tank-safes	3
Kettles for cookers	20	Hood in blacksmith-shop ..	1
Slop-kettles	6	Gas-stoves	150
Water-coolers	6	500-gal water-tanks	3
Stove-boards	12	Kitchen-boilers	100
Bucket-covers	12	Lift-pumps	2
Flower-pots	6	Grindstone-troughs	2
Soap-tank	1	Flushers	10
Lye-tank	1	Jacket for bone-crusher	1
Hot-water boilers	5	Urinals	6
Gas hot-water heaters	3	Feed-box for dairy	1
Flush-tanks	12	Shelving (feet)	100
Ventilators	6	Steam-conductor-pipe	350
Gas-receiver	1	Black iron Coffee-boilers	2
Incubator	1	Gas-cover	1
Lamps	3	Coffee-roasters	2
700-gal. oil-tank	1	6-inch stove-pipe (feet)	26
Irrigation valves	12	O. G. eave-trough (feet)	176
Conductor-heads	12	Zinc bathtubs	4

BROOM SHOP.

Articles.	No.
Brooms	1,385

TINSMITH'S SHOP.

Articles.	No.	Articles.	No.
3-gal. milk-cans, with cover	36	3½-gal. tin pots	48
2-gal. milk-cans, with cover	6	2½-gal. meat buckets	96
1½-gal. milk-cans, with cover	3	1½-gal. milkcans	18
¾-gal. milk-cans, with cover	3	1-gal. tin meat pans	90
3-gal. buckets	6	3½-gal. iron water buckets	42
3-gal. strainer-buckets	2	2-gal. tin grease buckets	6
30-gal. milk-tanks	1	1½-gal. tin coffee or tea cans	6
Screen-top milkcan-covers	36	Tin dishes for steam table	10
Cuspidors, doz.	8	Tin dough pans in pantry	4
Chamber-pots, doz.	20	Tin pudding pans	24
Buckets, doz.	15	Russian iron roast pans	12
Dustpans, doz.	5	Tin colanders	6
Cups, doz.	25	Large galvanized iron colanders	2
Soup-plates, doz.	5	Tin dishes for special diet	12
40-gal. iron steamers (galvanized)	14	1-gal. milkcans	24
30-gal. iron pots (galvanized)	4	Coffee-boilers	6
20-gal. tin pots	4	Tea-boilers	3
10-gal. and 12-gal. tin pots	20	Soup-boilers	10
15-gal. tin coffee-pots	122	Steam-cookers	4
15-gal. tin teapots	2	1-gal. dippers	6
40-gal. iron grease-pots (galvanized)	6	Dripping-pans	8
6-gal. soup buckets	130		

CARPENTER SHOP.

Articles.	No.	Articles.	No.
Trunks	4	Cover for gas-stove	1
Operating tables	1	Stand for gas-stove	1
Refrigerators	2	Wardrobe	2
Step-ladders	2	Shoe-box	1
Ladies' dressing-case	1	Brackets	6
Tables	2	Lap-board	2
Bird-cage	4	Cabinet	1
Cupboard	1	Screen-doors	24
Sideboard	6	Window-screens	781

SEWING-ROOM—FEMALE DEPARTMENT.

Articles.	No.	Articles.	No.
Aprons	961	Sacks, flannel	85
Chemises	617	Sheets	651
Drawers	360	Sheets, single	111
Dresses	711	Skirts, cotton	250
Night-dresses	753	Skirts, flannel	384
Napkins	216	Sun-bonnets	137
Pillowslips	380	Towels, roller	109
Pillowshams	16	Towels, short	385
Sacks, cotton	85		

TABLE No. 6.

Products of the Farm, Garden, and Dairy—1894-96.

Products.	No.	Products.	No.
Beets, table	Lbs. 42,600	Onions	Lbs. 12,155
Beets, mangelwurzel	Lbs. 200,000	Peppers and okra	Lbs. 2,120
Tomatoes	Lbs. 97,950	Muskmelons	Doz. 25
Parsnips, turnips, and carrots	Lbs. 59,800	Pears, peaches, and grapes	Lbs. 9,725
String-beans and peas	Lbs. 10,100	Celery	Lbs. 373
Pumpkins and squash	Lbs. 41,180	Eggs	Doz. 1,596
Green corn and cucumbers	Doz. 7,789	Milk	Gal. 73,161
Lettuce	Doz. 1,682	Hay, dry	Tons 80
Cabbage and cauliflower	Lbs. 52,400		

TABLE No. 7.

Live Stock on Hand, June 30, 1896.

Stock.	No.	Stock.	No.
Milch cows	45	Horses	13
Bulls	3	Poultry	700
Calves	18		

Knowing that you have full data for a report to the Governor of the repairs and improvements made and still going on, I think it unnecessary to recapitulate them. I also think that I am not called upon to suggest any extra appropriations, except in the matter of a new gas well.

I am informed by Mr. J. N. Jensen, of the firm of Haas & Jensen, a very competent judge in such matters, that a gas well could be sunk to the 1,750-foot gas stratum (which is evidently the most valuable stratum yet found) for the sum of \$7,000. If it should be found necessary to build a receiver for the gas, which is not likely, the whole cost would not exceed \$10,000. As it is almost certain that such a well would pay a large per cent on the investment, it seems to me that an appropriation for this purpose would be strictly in the line of economy.

I will call your attention to one improvement which may have escaped your observation. A suitable room has been fitted up and furnished for laboratory work and pathological investigation. This provision has been long deferred, but once had, it becomes a recognized necessity.

Thankful acknowledgment is due to the following gentlemen for generous donations of plants to beautify the grounds: To Mr. George West, for a fine collection of cacti, cannas, ferns, etc.; to Mr. John McLaren, Superintendent of Golden Gate Park, for a good selection of hardy shrubs, and to Captain E. Kellner, gardener at the State University, for a number of olive trees, ornamental trees, and shrubs.

We are under renewed obligations to the editors and proprietors of many newspapers and other periodicals for the gratuitous supply of their publications for the benefit of the patients. We also thank others who have contributed newspapers, magazines, etc.

On December 25, 1894, we were called upon to mourn the death of Dr. Thomas Phillips, a most efficient member of the medical staff—a man much esteemed and beloved by a large circle of friends and by all connected with the Asylum. His untimely death in early manhood is deeply regretted.

On January 10, 1895, Dr. Henry E. Sanderson, of San Francisco, was elected to fill the vacancy. From the beginning of my term to the present time the members of the medical staff have shown themselves competent, loyal to their trust, earnest, and constant in their work.

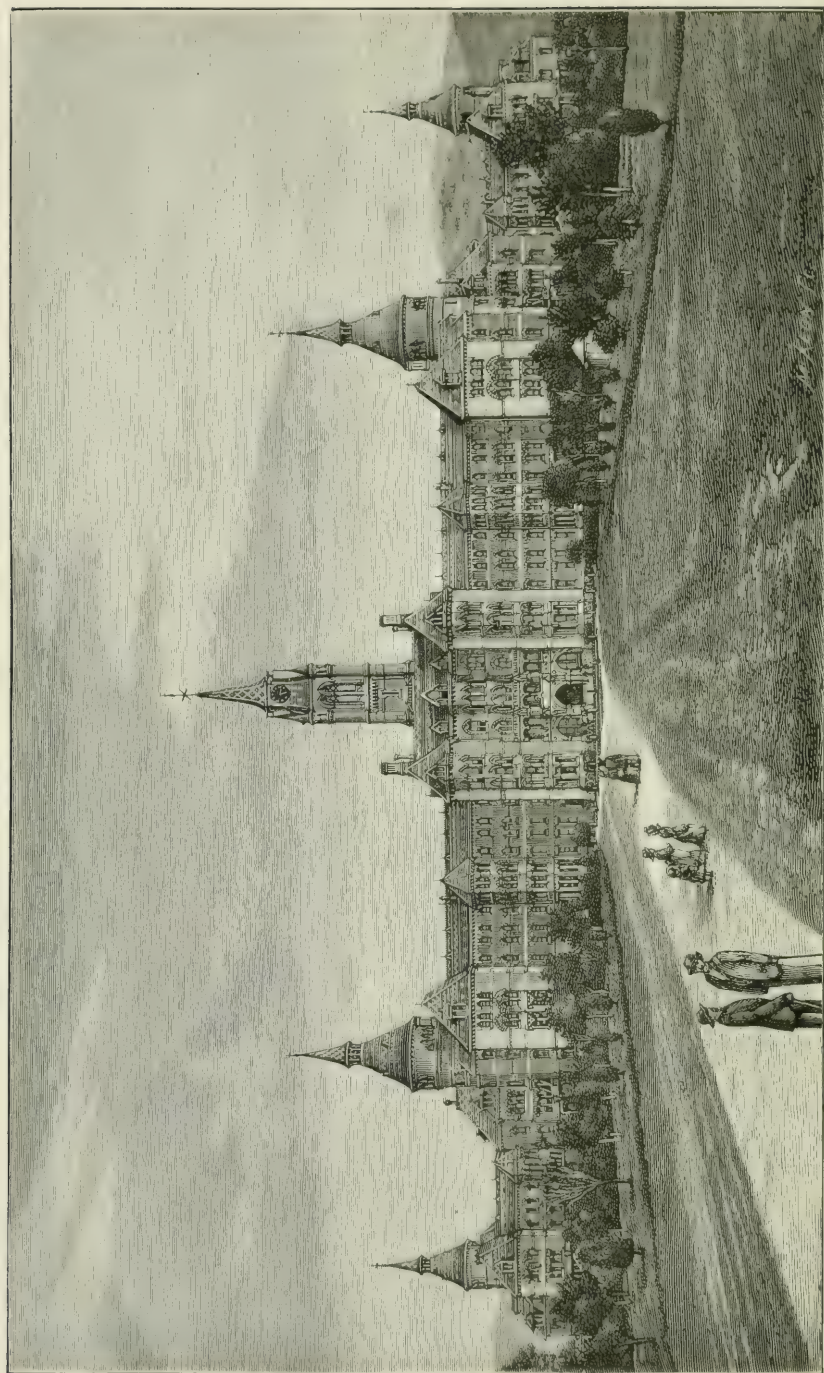
The condition of the patients, and of the buildings and other property, is a sufficient evidence, I think, that the working force of the Asylum has been diligent and faithful.

Thanking you, gentlemen, for judicious coöperative support in my executive management of the great trust confided to me, I remain,

Very respectfully yours,

ASA CLARK,
Medical Superintendent.





STATE INSANE ASYLUM AT NAPA.

BIENNIAL REPORT OF THE TRUSTEES
AND THE
TWENTIETH AND TWENTY-FIRST ANNUAL REPORTS
OF THE
RESIDENT PHYSICIAN
OF THE
NAPA STATE ASYLUM FOR THE INSANE.

1895-1896.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1896.



OFFICERS OF THE ASYLUM.

BOARD OF TRUSTEES.

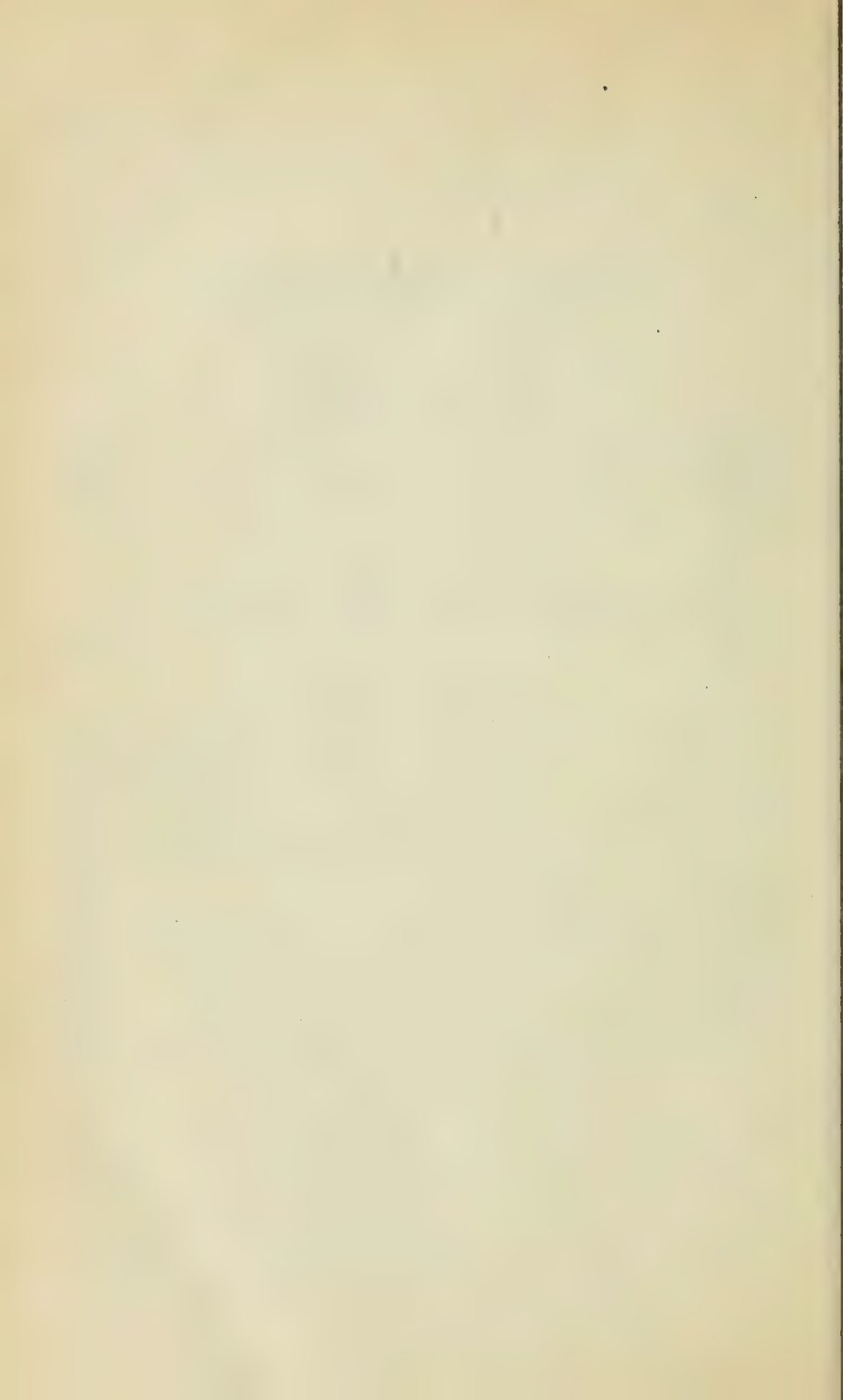
II. H. HARRIS, <i>President</i>	Rutherford.
RALEIGH BARCAR	Vacaville.
A. J. HULL	Napa.
ROBERT P. LAMDIN	Napa.

TREASURER AND EX OFFICIO SECRETARY.

C. B. SEELEY	Napa.
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RESIDENT OFFICERS.

A. M. GARDNER, M.A., M.D.	Resident Physician.
L. F. DOZIER, M.D.	Assistant Physician.
G. R. BOWLES, M.D.	Assistant Physician.
DRIESBACH SMITH	Assistant Physician.
E. H. KING	Private Secretary to Resident Physician.
J. M. PALMER	Steward.
MRS. MARGARET McCLAIN	Matron.
HANNAH J. SULLIVAN	Assistant Matron.
JOHN HAWKES	Supervisor.
HANS JENSEN	Assistant Supervisor.
W. H. MARTIN	Druggist.
C. R. SMITH	Steward's Clerk.



REPORT.

To the HON. JAMES H. BUDD, Governor of the State of California:

As directed by law, the Trustees of the Napa State Asylum for the Insane submit a report of the condition of the institution for the two fiscal years ending June 30, 1896.

The last Legislature appropriated \$400,000 for maintenance for the two fiscal years ending June 30, 1897, with the understanding that this hospital should not be called upon to care for more than 1,300 patients; still at the close of the fiscal year ending June 30, 1896, 1,404 patients were being cared for. Of the \$400,000 appropriated for the fiscal years ending June 30, 1896, and June 30, 1897, only \$200,000 has been available for the year ending June 30, 1896, and of this amount only \$183,330 36 has been expended for maintenance, leaving a balance of \$16,669 64 unexpended, and available for the next fiscal year.

The appropriation for maintenance for the two fiscal years ending with June, 1895, was \$400,000. It will be seen by the Treasurer's report, herewith submitted, that the expenditures for maintenance during those fiscal years were \$394,961 44, leaving a balance of \$5,038 36 unexpended, and hence not drawn from the State Treasury. The following statement shows the receipts and expenditures on account of the Contingent Fund for the two fiscal years ending June 30, 1896.

Vouchers for the above expenditures are on file in the office of the Treasurer, except those for the Contingent Fund, which are on file in the office of the Resident Physician.

The following statement shows the receipts and expenditures on account of the Contingent Fund for the two fiscal years beginning July 1, 1894, and ending June 30, 1896:

RECEIPTS.		
Cash balance on hand July 1, 1894.....		\$6,143 06
Cash from Steward's sales.....	\$2,031 79	
Cash from board of patients.....	25,380 72	
		<u>27,412 51</u>
Total.....		\$33,555 57

EXPENDITURES.		
Abstract of title.....	\$150 00	
Attorney's fees.....	6 50	
Automatic steam valves.....	220 00	
		<u></u>
Amounts carried forward.....	\$376 50	\$33,555 57

Amounts brought forward	\$376 50	\$33,555 57
Baling hay	140 50	
Baseballs and supplies	17 50	
Bathtub	34 50	
Bedsteads and bedding	630 23	
Bone-machine and supplies	53 00	
Brick (3,000 for setting engine)	33 00	
Brick (900,000 manufactured)	1,795 50	
Carpenter-shop	839 05	
One 8 horse-power Case engine, complete	200 00	
Carwheels (10 sets)	70 00	
Cash paid working patients	8 50	
Cash returned to pay-patients	60 00	
Castrating colts	6 00	
Chairs	238 00	
Christmas goods	105 42	
Closets	48 88	
Clothing for working patients	211 05	
Coal-cars	105 00	
Copying-press and supplies	24 35	
Cottage on Coombs' ranch	324 40	
Cottage on grounds	569 21	
Crockery	56 33	
Discharged patients	212 25	
Electric clock repaired	40 70	
Enameled steel sink	8 65	
Engine	100 00	
Entertainments for patients	150 00	
Exchange	25 46	
Exhauster	90 00	
Expense of travel	105 45	
Experting books, and making report	225 00	
Fire-extinguishers	165 00	
Fire-fender	3 50	
Fruit and vegetables	35 26	
Fruit trees, for replanting	69 14	
Galvanized iron wind-pipe	45 00	
Gravel	40 00	
Hack hire	30 00	
Hardware	1,578 23	
Harness repairs	52 85	
Incandescent gas-burners	7 00	
Interest on borrowed money	603 88	
Inventory of Asylum property	300 00	
Labor on grounds	1,872 00	
Labor, painting	1,609 50	
Labor, plumbing	1,362 00	
Labor, pruning	257 30	
Labor, stone-mason	1,920 00	
Laundry, building	1,162 16	
Lime, cement, sand, and plaster	925 00	
Lumber	861 26	
Machinery for carpenter-shop	458 89	
Magnesia covering for pipes and boilers	2,335 83	
Map of lands and buildings	40 00	
Massey current controller	10 00	
Amounts carried forward	\$22,490 23	\$33,555 57

Amounts brought forward ..	\$22,490 23	\$33,555 57
Miscellaneous	457 57	
Murray jacket kettle	210 00	
Music and musical instruments	54 95	
Planer, saw-table, and lathe	328 00	
Radiators	34 26	
Recorder's fees	5 85	
Reaping 40 acres of grain	30 00	
Religious services	825 00	
Rent of lands	510 00	
Rent of telephones	65 00	
Repairing desk	3 00	
Repairing and testing two wagon-scales	18 00	
Return of escaped patients	82 10	
Saw-guide	10 00	
Saw and extension shaft	15 00	
Service of stallions	90 00	
Sewing-machines for tailor-shop	290 03	
Sewer-pipe	16 90	
Spring-pressure regulator	16 65	
Surveying	30 00	
Table linen	36 27	
Telephones	63 20	
Thermometer (high grade)	17 65	
Transfer of patients to other asylums	33 65	
Typewriting	10 35	
Upholstering	31 80	
Ventilation plant in center building	1,625 00	
Vertical automatic engine	425 00	
Veterinary services	39 00	
Water-tanks (2)	8 00	
Wire-guards	253 00	
Total		\$28,283 46
Cash balance on hand June 30, 1896		\$5,272 11

As the above table shows, the last two fiscal years commenced with \$6,143 36 and closed with \$5,272 11 in the Contingent Fund, while during this time \$28,282 46 has been expended in making permanent improvements which were greatly needed, and which in the end will greatly assist in the economical management of the hospital. The recommendations of the Resident Physician that cottages should in the near future be built out of the Contingent Fund, not to exceed in cost \$3,000 each, and that an additional water-supply should be secured, we heartily indorse, and believe that in both instances the welfare of our unfortunate people will be enhanced and the purposes of economy subserved by carrying out the recommendations. We would respectfully refer you to the Resident Physician's report for the reasons why these improvements should be made.

This Board would recommend to your Excellency that \$400,000 be appropriated for maintenance during the next two fiscal years, respectfully referring you to the Resident Physician's report for reasons for recommending that amount.

Among the many improvements made we would make special mention of a new carpenter-shop, furnished with planing machinery, rip saw, band saw, cross-cut saw, and turning-lathe, all of which are run by power furnished by the main engine; new dry-house, with the capacity of drying one hundred thousand articles per month; new ranch-house, with six rooms, kitchen, bathroom, and pantry; an addition to octagon cottage, consisting of two rooms, kitchen, pantry, and bathroom; addition to ice-house, and extension of laundry, all of which have been built at about one fourth of the cost that would have been incurred if the work had been done by contract, and we cheerfully give all the credit to Dr. A. M. Gardner for the able and economical manner in which said improvements have been made.

We heartily indorse the management of the institution by Dr. A. M. Gardner, as Resident Physician, and sincerely believe, and take pride in saying, that no like institution in the United States has ever been, or is now, managed and superintended with greater ability and skill than this institution has been and now is managed by Dr. A. M. Gardner.

Respectfully submitted.

H. H. HARRIS,
President,
RALEIGH BARCAR,
A. J. HULL,
R. P. LAMDIN,
Trustees.

Dated October 27, 1896.

TREASURER'S REPORT.

To the Honorable Board of Trustees of the Napa State Asylum for the Insane:

GENTLEMEN: I herewith present my report as Treasurer of said Asylum for the fiscal years ending June 30, 1895, and June 30, 1896, on account of maintenance. Vouchers are in my office for all moneys paid out.

THE TREASURER IN ACCOUNT WITH MAINTENANCE FUND FOR THE
FISCAL YEAR ENDING JUNE 30, 1895.

RECEIPTS.

	Balance on hand per last report.....	\$7,450 65
1894—	July—Received from the State.....	15,416 97
	Aug.—Received from the State.....	16,717 29
	Sept.—Received from the State.....	15,824 92
	Oct.—Received from the State.....	14,711 07
	Nov.—Received from the State.....	16,986 68
	Dec.—Received from the State.....	17,791 61
1895—	Jan.—Received from the State.....	17,039 92
	Feb.—Received from the State.....	14,976 93
	Mar.—Received from the State.....	14,453 86
	Apr.—Received from the State.....	15,791 13
	May—Received from the State.....	13,872 77
	June—Received from the State.....	22,735 21
		<u>\$203,769 01</u>

EXPENDITURES.

	Paid out on orders of the Board of Trustees.....	196,318 36
	Balance on hand	<u>\$7,450 65</u>

THE TREASURER IN ACCOUNT WITH MAINTENANCE FUND FOR THE
FISCAL YEAR ENDING JUNE 30, 1896.

RECEIPTS.

	Balance on hand per last report.....	\$7,450 65
1895—	July—Received from the State.....	13,193 28
	Aug.—Received from the State.....	15,025 17
	Sept.—Received from the State.....	14,731 47
	Oct.—Received from the State.....	15,699 36
	Nov.—Received from the State.....	16,299 00
	Dec.—Received from the State.....	16,480 12
1896—	Jan.—Received from the State.....	16,612 22
	Feb.—Received from the State.....	15,508 36
	Mar.—Received from the State.....	15,192 83
	Apr.—Received from the State.....	14,581 36
	May—Received from the State.....	14,513 10
	June—Received from the State.....	15,494 09
		<u>\$190,781 01</u>

Receipts brought forward	\$190,781 01
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EXPENDITURES.

Paid out on orders of the Board of Trustees.....	183,330 36
Balance on hand	\$7,450 65

The State's appropriation for maintenance for the fiscal years ending June 30, 1894, and June 30, 1895, was \$400,000. The expenditure on account of maintenance during the said two fiscal years was \$394,961 44, leaving a balance of said appropriation unexpended, and not drawn from the State Treasurer, of \$5,038 56.

Respectfully submitted.

C. B. SEELEY,
Treasurer.

August 8, 1896.

REPORT OF THE RESIDENT PHYSICIAN.

To the Honorable Board of Trustees of the Napa State Asylum for the Insane:

GENTLEMEN: In compliance with the requirements of law and your regulations, the following report of the operations of the Asylum for the years ending June 30, 1895, and June 30, 1896, is respectfully submitted.

The following tables show the movement of patients for the fiscal years commencing July 1, 1894, and ending June 30, 1895, and commencing July 1, 1895, and ending June 30, 1896:

Movement of Patients from July 1, 1894, to June 30, 1895.

	Males.	Females.	Total.
Number of patients, July 1, 1894.....	759	576	1,335
Number admitted during the year.....	137	96	233
Number returned escapes.....	2	0	2
Number under care and treatment.....	898	672	1,570
Number discharged recovered.....	36	31	67
Number discharged improved.....	12	13	25
Number discharged unimproved.....	3	0	3
Number discharged not insane.....	2	0	2
Number transferred to other asylums.....	1	0	1
Number died.....	73	42	115
Number eloped.....	4	0	4
Discharged, died, and eloped.....	131	86	217
Number of patients remaining, June 30, 1895.....	767	586	1,353

Movement of Patients from July 1, 1895, to June 30, 1896.

	Males.	Females.	Total.
Number of patients, July 1, 1895.....	768	585	1,353
Number admitted during the year.....	154	93	247
Number returned escapes.....	8	0	8
Number under care and treatment.....	930	678	1,608
Number discharged recovered.....	39	19	58
Number discharged improved.....	17	13	30
Number discharged unimproved.....	2	0	2
Number discharged not insane.....	2	1	3
Number transferred to other asylums.....	0	0	0
Number died.....	61	36	97
Number eloped.....	14	0	14
Discharged, died, and eloped.....	135	69	204
Number of patients remaining, June 30, 1896.....	795	609	1,404

The tabular statements found in this report speak for themselves, and hence I need not discuss them in detail.

ESCAPES AND EMPLOYMENT.

Very few escapes have occurred during the last two years, and over one half of those have been returned. The liberties extended to our patients are great and the avenues of employment numerous, hence it is impossible with the most scrupulous watchfulness to prevent an occasional escape.

About four hundred and fifty patients have been employed in the various departments of this institution during the past two years, and I do not hesitate to say that those so employed have been the most healthy, most contented, and most happy people cared for in the hospital. Judiciously selected employment constitutes one of the best therapeutic measures in the treatment of the convalescing insane, and one of the best guards against violence and destructiveness among those who have passed onward into the chronic stages of the disease. Idleness has ever proven a curse to the human family wherever found to exist among those who are sane, and what is true in this regard of the sane is equally true of the insane. This being established as a fact, it is the earnest desire of the management of this institution to forward in every possible way the employment of our people.

STEWARD'S REPORT.

I would respectfully refer you to the report of the Steward, J. M. Palmer, for a full and concise account of all that pertains to that department.

METEOROLOGICAL REPORT.

Mr. W. H. Martin, our pharmacist, has for several years kept a careful record of the average mean, maximum, minimum, and highest and lowest temperature per day, month, and year, as well as the average rainfall. These records show a climate unequalled for the care and treatment of the insane, and are sought after by the press, medical journals, and the Weather Bureau, and they are regularly forwarded to Washington.

RESTRAINT.

As we have stated in our previous reports, where, in our opinion, the best interests of our patients demand restraint, we use it—either mechanical, medicinal, manual, or seclusional, as best suits individual cases. We believe that those physicians who are trusted to administer the most potent and deadly drugs when, in their judgment, such drugs will be of service in the treatment of the insane, can also be trusted to use restraint when the patient's best interests are advanced by so doing.

REPAIRS AND IMPROVEMENTS.

Carpenter's Department.

Built addition to octagon house, four rooms, one story high, 24x30; one shed for stable and wood-house, 16x30; one two-story farm-house, containing six rooms, bath, and pantry; all the carpenter work on brick carpenter-shop 40x60—one story and loft with five work-benches, planing machine, band saw, turning-lathe, rip and cross-cut saws; all the carpenter work on dry-house, brick, 40x60, one story high, one half fitted up with 52 patent roller drying-racks, the other half fitted up for an assorting-room and a mangle-room; renovated the old laundry throughout and did all the carpenter work on the new addition, 23x34, brick, one story high; carpenter work on the addition to ice-house, 12x16, brick, one story high; built one shed, 16x54, for drying bed-ticks; built one house-frame for a 3,000-gal. tank; laid maple floors in wards Nos. 4, 5, and Y; also, laid new floor in sitting-room, ward No. 3. In repairing windows have used 3,900 ft. of sash cord and 1,650 ft. of glass. Made 166 coffins and 36 outside coffin-boxes; 4 new 16-ft. roller gates and 16 new gate posts, 10x10 inches in size; 11 large and 38 small tables; 9 new step-ladders; 2 frames and platforms for elevators; 2 new wagon-beds for coal; 2 new harrows; 1 new frame for large iron roller; 4 new cars for delivering food; 2 new cars for laundry; 36 ash closet-seats; 18 baker's peels; 13 food-trays; 7 bread-boxes; 2 bath-tubs, capped; 2 laundry washtubs; 38 wooden bedsteads; 30 rocking-chairs; 30 folding-chairs; 3 wardrobes; 12 bureaus, six drawers each, and 3 of three drawers each; 11 benches for rear yard; fitted up new clothes-yard with 261 posts and caps, and have made all of our sash doors and mouldings; made mouldings for and framed 300 pictures; also, made many repairs and improvements throughout the building.

HOWARD E. ROPER,
Head Carpenter.

Engineer's Department.

Put in National feed water-heater, capacity 300 horse-power, temperature of water raised to 210½° before entering boilers; fitted up boiler-furnaces with new grate-bars, for burning Welsh anthracite coal; also put in one 45-in. Sturtevant fan and one 8 horse-power engine to create forced draught for furnaces; set up two tanks, with a capacity of 1,500 lbs., connected them with steam feed pumps, so as to make evaporation tests of different kinds of coal; constructed railroad track from coal-bunkers through boiler-room, and put in 3 new steel cars of the capacity of 1 ton each, with which the coal is delivered to the boilers; put on 3,048 sq. ft. of black sheet-iron ceiling in boiler-room; set up one new Howe's platform scales, capacity 3,500 lbs., which weighs all coal

used for steam and gas purposes; set up 3 new clay gas-retorts and connected them with the necessary stand pipes and mains; covered 12 hot-water boilers, 4 steam-drums, and 7,297 lineal feet of steam and hot-water pipe with sectional asbestos-magnesia covering; set up in the engine-room one 16 horse-power engine to run ammonia compressor, and one 3 horse-power engine in the basement to run 8 Singer sewing-machines in the men's tailoring department; put in one new Parson's oil-burner to burn coal tar in the gas furnaces; one new counter-shaft in engine-room 24 ft. long, with necessary hangers and pulleys, to run machinery in butcher-shop; one new friction clutch pulley, 5 x 30 in., on line shaft; took down, reconstructed, and set up 5 hydraulic elevators; took out, repaired, and set up 22 steam radiators; did all the machine work connected with the construction and equipment of the new carpenter-shop, as follows: Put up 225 lineal feet of galvanized iron gutter, with all necessary leaders and connections; one new steel truss, which carries line-shaft from engine-room to shop; extended line-shaft from engine-room through shop with 81 ft. of $2\frac{1}{2}$ -in. shafting, with all necessary hangers and pulleys; set up one planing-machine, cross-cut and rip saws, one turning-lathe, and one grindstone, and connected them with the main shaft. Put 92 lineal feet of galvanized iron cornice, 1,200 sq. ft. of slate, and 400 sq. ft. of tin on extension to laundry building; one new hydraulic elevator, capacity 2,500 lbs., in laundry; extended line-shaft 34 ft.; set up 3 new 26-in. wringers and 2 new washing-machines; moved and reset 2 old washing-machines; set one gas shirt-ironer, one steam mangle, and connected them all with the line-shaft, with the necessary counter-shafts, belts, etc.; put 225 lineal feet of galvanized iron gutter on new dry-house, with all necessary leaders and sewer connections; lined the dry-room throughout with 1,836 sq. ft. of asbestos-magnesia covering; made and put into dry-room new double steam coils of 1-in. black pipe, which covers the entire floor surface, 11 x 56 ft., and used 6,309 lineal feet of pipe, sizes $\frac{3}{4}$ in., 1 in., $1\frac{1}{4}$ ins., 2 ins., and 4 ins., all connected with the steam mains and new Bundy steam trap; fitted up 51 clothes-racks with cast-iron heads, sheaves, and hung them on overhead tracks made of 1-in. pipe; made and set up one 60-gal. soap-boiler; set and connected with hot and cold water, and with the sewer, 5 stationary washtubs; constructed 2,000 ft. of 22-in. gauge railroad track, using 12-lb. steel rails; put up 10,000 ft. of galvanized iron wire in clothes-yard; set up one 150-gal. kettle in scullery for making soap, and one 60-gal. and one 30-gal. kettle in kitchen; moved and reset two hot-water boilers in the basement; constructed, of 2-in. galvanized iron pipe, 80 ft. of railing on front avenue; set 12 posts, of 2-in. galvanized iron, at the entrance of driveways, with chains stretched across from post to post; put up 144 new chandeliers in the wards; laid 240 sq. ft. of tin on

roof of ice-house; made and put in one new bathtub, one new steel sink, one new hot-water boiler; put in plumbing at new ranch-house and connected same with water-supply, using 400 ft. of 2-in. galvanized iron pipe; made and put in one new bathtub, set steel sink and hot-water boiler, and did all the plumbing at octagon cottage; put in white enameled sink, one hot-water boiler, one cooking stove, No. 7, and two wash-bowls in center building; made and set one bathtub, and set one water-closet in Infirmary; set two closets, one bathtub, two sinks, one gas stove, and three hot-water radiators in ward No. 6; set three radiators and one gas stove in ward No. 1; had made and put in twelve automatic temperature regulators on hot-water boilers throughout the building; set up four new stoves, one gas stove, and two new gas heaters; put in sixty-five new faucets, forty-seven valves, sizes $\frac{1}{2}$ to 4 ins.; 12,716 lineal feet wrought-iron pipe, sizes $\frac{1}{2}$ to 4 ins.; 160 ft. cast-iron pipe, sizes 3 to 6 ins., and 916 lineal feet of leather belting, widths $\frac{1}{2}$ to 14 ins.

GEORGE WHEELER,
Engineer.

Farm Department.

Improvement on front avenue: 5,000 yds. of gravel put on front avenue, and 1,000 yds. of gravel put on roads and walks on grounds. Made and burned 900,000 brick; put in 400 ft. 6-in., 200 ft. 4-in., and 400 ft. 3-in. drain pipe; set out 7 acres of French prunes, 1 acre of apples, peaches, and cherries, and dug well 40 ft. deep at Spencer ranch; set out 3 acres of French prunes and 2 acres of apples, peaches, and cherries at the Coombs ranch; 4,800 ft. of new road graded on the various ranches, and 200 sacks of charcoal burned.

DAVID MCCARTNEY,
Ranch Foreman.

For the amount of the various products raised upon the different ranches, I would respectfully refer you to the tables made out by the Steward.

Painter's Department.

Painted 22,547 sq. yds. surface; calcimined 17,334 sq. yds. surface; painted, in water colors, 2,246 sq. yds. surface; frescoed 500 sq. yds. surface; painted, grained, and varnished 139 sq. yds. wood work; painted 8,648 lineal feet of canvas-covered piping, 11 x 23 inches in circumference, also 11 covered boilers 7 ft. long by 9 ft. in circumference; painted 190 lineal feet of fencing, 190 head-boards, and 5,383 lineal feet of stencil borders, front of stage, drop curtain, and side curtain in amusement hall; painted and varnished 429 chairs, 107 bedsteads, 69 cuspidor mats, 47 stands, 13 safes, 7 vehicles, 14 ladders, 45 benches; stained

and varnished 7 wardrobes, 7 washstands, 13 bureaus, 10 bedsteads, 10 safes, 252 picture frames, and 8 tables; made 260 lbs. putty for glazing purposes.

M. J. ADAMS,
Head Painter.

Mason's Report.

Building foundation for engine, used 6,000 brick, 4 bbls. lime, 4 bbls. cement, 4 tons sand; chimney at cottage, used 1,000 brick, 1 bbl. lime, 1 bbl. cement, 1 ton sand; wall between boiler-house and gas-house, used 16,000 brick, 10 bbls. lime, 4 bbls. cement, 12 tons sand; foundation for tanks in boiler-house, used 1,500 brick, 1 bbl. lime, 1 ton sand; steaming tank, used 2,000 brick, 3 bbls. lime, 2 bbls. cement, 3 tons sand; gates at garden, used 2,000 brick, 3 bbls. lime, 2 bbls. cement, 3 tons sand; ice-house, used 8,000 brick, 5 bbls. lime, 2 bbls. cement, 6 tons sand; carpenter-shop, used 51,664 brick, 52 bbls. lime, 18 bbls. cement, 52 tons sand; building wall, used 7,500 brick, 5 bbls. lime, 2 bbls. cement, 6 tons sand; foundation for engine, used 2,000 brick, 2 bbls. lime, 2 bbls. cement, 2 tons sand; setting gas retorts, used 1,000 brick, 3 bbls. fire-clay, 2 bbls. lime, 1 bbl. cement, 2 tons sand; dry-house, used 74,000 brick, 45 bbls. lime, 18 bbls. cement, 5 tons sand; addition to laundry, used 37,000 brick, 25 bbls. lime, 9 bbls. cement, 28 tons sand; foundation for wringers, used 1,200 brick, 1 bbl. lime, 3 bbls. cement, 1 ton sand; foundation for water-tank, used 1,500 brick, 1 bbl. lime, 1 bbl. cement, 1 ton sand; closing tunnel, used 2,000 brick, 3 bbls. lime, 2 tons sand; brick floors, used 19,000 brick, 9 bbls. cement, 3 bbls. lime, 5 tons sand; floor in coal bunker, used 7,000 brick, 4 bbls. cement, 4 tons sand; house foundation, used 6,000 brick, 4 bbls. lime, 2 bbls. cement, 4 tons sand; resetting scales, used 9,000 brick, 6 bbls. lime, 3 bbls. cement, 6 tons sand. Total number brick used, 250,864; bbls. lime, 166; bbls. cement, 88; tons sand, 191.

Cement floors and walks, laid 7,940 sq. ft.; total amount cement used, 150 bbls. Stone work done, 4,457 ft.; total material used, lime, 4 bbls., cement, 17 bbls., sand, 44 tons. Plastering done, 630 sq. ft.; total material used, lime, 15 bbls., sand, 14 tons, Golden Gate plaster, $3\frac{1}{2}$ bbls.

D. J. THOMAS,
Stone-Mason.

In nearly every instance, when new institutions are built, no account is taken of the fact that the number of patients will rapidly increase over and above the number that the institution was first intended to accommodate. Such has been the mistake made at this hospital, and while the various departments were originally intended to furnish the room in which to do the work for 600 people, we are now caring for 1,412. This condition of affairs necessitates the enlarging of certain

departments. Having burned 900,000 brick during the last two years, we have been enabled to do this work at a minimum expense. The actual cost incurred in building the new carpenter-shop is \$839 05, while the cost of building the new dry-house is \$1,162 16. With the machinery in the carpenter-shop we find it possible to do all our mill work, make all the mouldings needed for repairs and improvements, make furniture, etc., all of which proved to be very expensive prior to erecting the building. It is estimated by our laundryman that at least 100,000 different articles are washed, assorted, and returned to the various wards during each month. By enlarging the laundry, putting in new washers, wringers, and other appliances, as well as increasing the capacity for drying in wet weather, all of which has been accomplished by the erection of the new dry-house, a large saving has been made in the consumption of coal and labor. I would respectfully call your attention to the tables showing the number of articles made in the sewing-room (Female Department) and in tailor-shop (Male Department) during the last two fiscal years. These tables show that 28,227 articles have been manufactured in these departments during these years, with the result that our patients are much better clothed, and that at a saving of at least 25% under the cost we would incur by buying them ready-made and in open market. Eighteen to twenty patients are employed in the tailor-shop, which was opened for work April 14, 1895, since which date 8,873 articles have been made. These patients are mostly selected from the chronic insane, and are among the most happy and most contented of patients that we have employed.

I would recommend to your Honorable Body the erection of three cottages at this institution for the physicians. Such structures can be built at a cost of \$3,000 each, requiring an aggregate sum of \$9,000 for their completion. By so doing room can be secured and used in the center building, which has cost the State at least \$75,000. The economy of such a measure can be readily seen, and needs no further comment.

APPROPRIATIONS NEEDED.

We need an appropriation for the purpose of constructing a stone dam, so as to increase the water-supply of this hospital, and also to secure the land upon which shall be placed the reservoir. During the months of July, August, and September, we have not sufficient water to raise our elevators, and from three to four hours a day the water-closets upon the wards on the upper stories of the building are not flushed. This condition is a direct menace to the health of our people, and should be remedied at the earliest opportunity. An increased supply of water will also extend our facilities for raising vegetables, as rich and valuable land, which at present can only be utilized for raising grain, can, with water for irrigation, be made to produce tons of vegetables during almost

the entire year. It should be remembered that a population of over 1,500 people will consume a large quantity of vegetables during a year, and when we consider that at least 1,100 of those above mentioned take little or no exercise, then it is reasonable to conclude that a diet largely vegetable will be conducive to the best health. Asylum management both here and elsewhere proves the truthfulness of the above statement, and it will prove economy to the State, and a great benefit to our unfortunate patients, if a liberal appropriation is granted with which to secure the water to further this feature of our work. The following is the report of the engineer, O. H. Buckman, who made the surveys for the reservoir herein mentioned:

To the Honorable Board of Directors of the Napa State Asylum for the Insane:

GENTLEMEN: In response to your order, made on the 12th day of September, 1896, directing me to prepare a report, together with plans and specifications, for a masonry dam for the purpose of forming a storage reservoir in what is known as the "Kruse Cañon," I now have the honor of submitting the following as my report:

I have made a pretty careful survey of the site of the proposed dam and reservoir, which is situated in the "Kruse Cañon," on land adjoining the Asylum land, and at a distance of about 9,000 ft. from the Asylum buildings. I find the site to be a remarkably good one for the purpose, where, by the construction of a dam 100 ft. in height above the bed of the creek, a reservoir can be formed having a storage capacity of about 300,000,000 gals.

The site for the dam is an excellent one, being in a narrow ravine with rocky bottom and sides, so that comparatively little material would have to be removed in order to get a solid rock foundation under the entire site of the dam.

There is also an abundance of good building-stone in the immediate vicinity with which to construct the dam.

For this site I would recommend a dam of rubble masonry laid in cement mortar, and having a profile or cross-section about as shown by the diagram (Fig. 5).

This is nearly the same as the profile of the great "Quaker Bridge Dam," which forms part of the Croton system of the water-works of New York City, except that the top width is not so great.

Many of the large dams built in recent years, both in this country and in Europe, have profiles of approximately this shape, and it is recognized as being the strongest for a minimum amount of material that has been devised.

I would recommend also that the dam be built on a curve of about 500 ft. radius, as shown on the diagrams, as this will add considerably to its strength in resisting the pressure of the water when the reservoir is full; does not materially increase the amount of masonry, and gives the structure a much more graceful appearance.

The dimensions of the dam would be about as follows, to wit: Height above bed of creek, 100 ft.; width or thickness at bottom, 70 ft.; thickness at top, 12 ft.; length on top, about 440 ft. This would flood about 25 acres of land, and make a lake of about 700 ft. in average width, with an average length of about 1,600 ft.

The amount of masonry in the dam would be about 19,000 cu. yds.

I would recommend that the supply pipe leading from the reservoir to the Asylum buildings be 8 ins. in diameter.

GENERAL SPECIFICATIONS

For a masonry dam in the "Kruse Cañon," near the Napa State Insane Asylum, for the purpose of forming a Storage Reservoir for impounding water for the use of the Asylum:

The dam to be of the form and about of the dimensions shown on the accompanying diagrams, to wit:

Height above bed of creek	100 ft.
Length on top, about	440 ft.



FOLD OUT

OUT

Width or thickness of base.....	70 ft.
Width or thickness of top.....	12 ft.
Estimated amount of masonry.....	19,000 cu. yds.
Supply pipe under dam, 12 ins. diameter.....	100 ft.
Waste pipe under dam, 24 ins. diameter.....	100 ft.

The entire dam, except the coping and ornamental cornice on lower face, to be built of uncoursed rubble masonry laid in hydraulic cement mortar, the face stones on each face to have horizontal and approximately vertical joints.

The foundation of the dam shall be cleared of all earth and loose and seamy rock, and shall not be leveled off, but left with a rough and jagged surface, especially across the width of the dam. All seams in the bedrock to be cleaned out and filled with cement mortar.

The stone used in building the dam to be the best and heaviest that can be found in the vicinity, and must be sound and free from cracks, and of the largest size that can be conveniently obtained and handled; the spaces between the larger stones to be filled in with smaller stone and spawls, all well bedded and flushed with cement mortar, so as to make as nearly as practicable a water-tight wall.

The coping and cornice to be of stone cut to such shape and size as may be specified. On, and partly into, the upper face of the dam, as shown on the plans (Figs. 3 and 5), will be built a circular well or shaft about 5 ft. in diameter, for an inlet well.

Through the walls of this shaft at various heights shall be set a number of inlet pipes curved upward at the outer ends and furnished with covers for the purpose of admitting water to the shaft at such heights as may be desired.

The supply pipe running through the dam will lead out from near the bottom of this shaft, and be provided with a stop gate as shown (Fig. 5).

There will also be laid through the lowest part of the dam a waste pipe 24 ins. in diameter, furnished with a valve and suitable screen on the upper end.

All work to be done under the direction and supervision of an engineer and competent inspectors.

ESTIMATE OF COST.

19,000 cu. yds. masonry, at \$6 25 per cubic yard.....	\$118,750 00
9,000 lineal feet 8-in. pipe, at 90 cents per foot	8,100 00
100 lineal feet 12-in. outlet pipe under dam.....	150 00
100 lineal feet 24-in. waste pipe under dam	300 00
Engineering, superintendence, etc., say	5,700 00
Total	<u>\$133,000 00</u>

To this must be added the cost of purchasing the land on which the site of the reservoir is situated, which would add probably \$..... or \$..... more.

The plans hereto attached are made a part of this report.

Respectfully submitted.

O. H. BUCKMAN,
Engineer.

NAPA, CAL., October 10, 1896.

We are of the opinion that not less than \$400,000 should be appropriated for the maintenance of this institution for the next two fiscal years. During the last fiscal year, commencing July 1, 1895, and ending June 30, 1896, the daily average per capita expense has been 36.4 cents. Owing to the almost daily increase of our patients, we will probably be called upon to care for, during the next two fiscal years, on an average of 1,500 people. At 36.4 cents per day, it would require \$398,580 for maintenance. Bearing in mind that many unknown and unforeseen expenses arise from year to year, we feel warranted in placing before you the above estimate, in the belief that it will only be sufficient to meet our wants, when expended with the strictest economy.

AMUSEMENTS.

The amusements and entertainments for the diversion of the patients have, as in years gone by, consisted of weekly dances and various dramatic and musical performances. The dances have been attended and participated in by a larger number of patients than during the preceding two years, and the enjoyment has been marred only by the size of the dance hall, which is not large enough to accommodate comfortably all who desire to dance. The dramatic entertainments have been given most frequently during the winter months, and have consisted of farces and plays by the Asylum attachés and friends from Napa. In this connection, we again find ourselves under greater obligations than we can adequately express to the friends who have assisted us. First and foremost, we have to thank the members of the Napa Specialty Club for a number of entertainments which have been particularly enjoyable to the patients. The boys of the club have a very warm corner in the hearts of our inmates. We also take this opportunity of expressing our obligations to the Sentor Peyton Company, the James A. Keane Company of Players, the Tennessee Jubilee Singers, Messrs. Frank Boggs, E. W. Churchill, Raymond Benjamin, Earl Raymond, George G. Hunt, George De Prefontaine, Lyman King, Frank V. Gibbs, Charles Grimm, Mrs. R. Wylie, Mrs. D. Spencer, Mrs. Frances Edgerton, Mrs. E. W. Churchill, Miss Mildred Francis, Miss Ethel Francis, Miss Gertrude Thompson, Miss Hazel King, Miss Carrie Swain, Miss Hattie Trowbridge, and Mrs. Ella Martin.

The band, under the leadership of Mr. J. Streb, and the orchestra have worked faithfully and attained a meritorious degree of excellence, and a popularity that extends beyond the Asylum.

The pharmacist of the Asylum, Mr. W. H. Martin, has taken charge of the baseball games, and succeeded in arousing and maintaining a steady interest, which has resulted in markedly beneficial effects to the individual patients who participate, and a very enjoyable entertainment to the number (much larger, of course) who witness the game. Friendly match games between picked nines from Napa and our own players have been of frequent occurrence, and have been gala days for a large number of patients. The value of exercise as a therapeutic measure has been demonstrated during the season of baseball, and the management has under contemplation a regularly organized athletic department.

RELIGIOUS SERVICES

Have been held as usual every Sunday. The purchase of the Mason & Hamlin Liszt organ has rendered it possible to make the musical portion of the service thoroughly enjoyable. An effort is made on Christmas Day and Easter Sunday to decorate the chapel as beautifully as possible, and have an elaborate musical service.

DONATIONS.

The following named publications have been gratuitously and regularly received:

Napa Weekly Journal.	Alameda Encinal.
Calistogian, Calistoga, Cal.	San Francisco Staats Zeitung (German).
Chico Enterprise.	Selma Irrigator.
Westliche Post (German), St. Louis, Mo.	Petaluma Argus.
Jewish Progress, San Francisco.	Redlands Citrograph.
Oakland Journal (German).	Dixon Tribune.
Contra Costa Gazette.	Lake County Avalanche.
Sacramento Weekly Bee.	Contra Costa Democrat.
Ukiah Dispatch and Democrat.	San Francisco Hebrew.
Abend Post (German), San Francisco.	Winters Express.
The Pacific, San Francisco.	Petaluma Courier.
St. Helena Star.	Cloverdale Reveille.
Biggs Argus, Butte Co., Cal.	San José Daily Herald.

For donations of miscellaneous reading matter, we are under obligations to—

Miss Lola Parker, Napa.	Mrs. F. E. Johnston, Napa.
Mrs. E. C. Marsh, Glenbrook.	St. Luke's Church Periodical Club, San Francisco, by Mrs. Theo. E. Smith, Librarian.
Mrs. F. I. Kendall, Oakland.	D. J. Thomas, Napa.
Prof. H. L. Gunn, Napa.	Dr. F. Stabel, Napa.
H. C. Horstmeyer, Napa.	J. J. Sweet, Napa.
Walter F. Ollard, Napa.	Mrs. F. K. Smythe, Napa.
Junior Epworth League, M. E. Church, Napa.	Presbyterian Society of Christian Endeavor, Napa.
Mrs. Dr. Bowles, Napa.	L. G. Kean, Napa.
Mrs. H. H. Knapp, Napa.	J. H. Chalmers, Napa.
Mrs. Charles Derby, Napa.	Bert Norton, Napa.
J. Morgenthau, San Francisco.	Mrs. Gift, Napa.
Mrs. D. R. Hunt, Napa.	Rural Health Retreat, St. Helena.
S. M. Tool, Napa.	Mrs. E. H. King, Napa.
Mrs. H. M. Meacham, Napa.	C. B. Froment, New York.
A. E. Wimmerstedt, Napa.	Geo. E. Goodman, Jr., Napa.
Mrs. G. N. Beebee, Napa.	Everett Ingalls, Napa.
Will Carruth, Napa.	S. B. Merrill, Napa.
Miss E. Buckley, Napa.	F. L. Hunt, Napa.
G. M. Francis, Napa.	B. W. Parsons, Napa.
Wilder Churchill, Napa.	Dr. D. Smith, Napa.
Mrs. Harriet Lawrence, Napa.	Mrs. C. R. Gritman, Napa.
E. S. Churchill, Napa.	Maggie Dwyer, Yountville.
Mrs. Frank H. Deakin, Napa.	Maria Newton, Napa.
Miss Kate Ames, Napa.	H. M. Meacham, Napa.
Mrs. W. E. Smith, Napa.	Mrs. W. Egbert, Napa.
Rose W. Parks, Napa.	Alf. Street, Vallejo.
Lowell M. Peck, Napa.	Mary Mayer, San Francisco.
B. F. Holden, Napa.	Joe Schupert, Napa.
M. L. Miner, Chasey, N. Y.	
Mrs. A. W. Norton, Napa.	
O. A. King, Benicia.	

I wish at this time to return thanks to Dr. D. Smith, E. H. King, and Miss J. E. Moreland, for their kind and valuable assistance in making out this report.

Now, gentlemen of the Board of Trustees, another two years have passed in the management of this great charity. Whatever successes may have been achieved or excellence attained is largely due to your cordial support and kindly advice. For all of which I am truly thankful.

Respectfully submitted.

A. M. GARDNER,
Resident Physician.

APPENDIX.

NUMBER OF ADMISSIONS, RECOVERIES, DEATHS, ETC.

FROM NOVEMBER 15, 1875, TO JULY 1, 1896.

Years.	Admissions.	Recoveries.	Discharges— Uncured.	Discharges— Not Insane.	Removed to Other Asy- lums.	Deaths	Returned Escapes.
Nov. 15, 1875, to July 1, 1876	321	69	20	0	0	20	0
July 1, 1876, to July 1, 1877	451	140	71	0	0	49	0
July 1, 1877, to July 1, 1878	433	148	71	0	0	70	0
July 1, 1878, to July 1, 1879	615	184	133	0	0	104	0
July 1, 1879, to July 1, 1880	572	189	163	0	0	91	0
July 1, 1880, to July 1, 1881	563	133	122	0	0	124	0
July 1, 1881, to July 1, 1882	543	125	161	0	0	107	0
July 1, 1882, to July 1, 1883	463	127	174	0	0	112	0
July 1, 1883, to July 1, 1884	500	130	177	0	0	90	0
July 1, 1884, to July 1, 1885	479	119	155	0	0	110	0
July 1, 1885, to July 1, 1886	346	80	121	0	0	113	0
July 1, 1886, to July 1, 1887	363	95	146	0	0	98	0
July 1, 1887, to July 1, 1888	355	86	126	0	0	117	0
July 1, 1888, to July 1, 1889	401	114	95	0	177	138	3
July 1, 1889, to July 1, 1890	296	106	84	0	5	103	0
July 1, 1890, to July 1, 1891	299	68	57	7	1	100	3
July 1, 1891, to July 1, 1892	277	96	62	1	0	109	7
July 1, 1892, to July 1, 1893	325	114	42	3	1	130	4
July 1, 1893, to July 1, 1894	243	83	34	1	103	131	1
July 1, 1894, to July 1, 1895	233	67	28	2	1	115	12
July 1, 1895, to July 1, 1896	247	58	32	3	0	97	8

Years.	Escapes	Number Resident at Close of Each Year	Increase.	Decrease	Whole Number Treated	Per Cent of Recov- eries to Admis- sions	Per Cent of Deaths on No. Treated
Nov. 15, 1875, to July 1, 1876	4	208	208	0	321	21.49	6.23
July 1, 1876, to July 1, 1877	4	395	187	0	659	31.04	7.43
July 1, 1877, to July 1, 1878	11	523	133	0	828	34.11	8.45
July 1, 1878, to July 1, 1879	8	714	186	0	1,143	29.91	8.22
July 1, 1879, to July 1, 1880	4	839	125	0	1,286	31.29	7.08
July 1, 1880, to July 1, 1881	2	1,021	182	0	1,402	23.62	8.84
July 1, 1881, to July 1, 1882	0	1,172	151	0	1,564	23.02	6.84
July 1, 1882, to July 1, 1883	3	1,219	47	0	1,635	27.43	6.85
July 1, 1883, to July 1, 1884	3	1,319	100	0	1,719	26.00	5.24
July 1, 1884, to July 1, 1885	5	1,409	90	0	1,798	24.84	6.12
July 1, 1885, to July 1, 1886	5	1,436	27	0	1,755	23.12	6.43
July 1, 1886, to July 1, 1887	6	1,454	18	0	1,799	26.17	5.53
July 1, 1887, to July 1, 1888	11	1,469	15	0	1,829	24.22	6.47
July 1, 1888, to July 1, 1889	0	1,349	0	120	1,873	28.17	6.94
July 1, 1889, to July 1, 1890	3	1,344	0	5	1,645	35.81	6.26
July 1, 1890, to July 1, 1891	7	1,406	62	0	1,646	22.74	7.11
July 1, 1891, to July 1, 1892	7	1,414	8	0	1,690	34.65	7.07
July 1, 1892, to July 1, 1893	8	1,445	31	0	1,743	35.00	7.40
July 1, 1893, to July 1, 1894	2	1,335	0	110	1,689	34.57	7.76
July 1, 1894, to July 1, 1895	4	1,353	18	0	1,570	28.75	7.32
July 1, 1895, to July 1, 1896	14	1,404	51	0	1,608	23.48	6.03

STATISTICAL TABLES FOR 1894-95.

TABLE No. 1.

Counties from which 233 Patients were Admitted from July 1, 1894, to June 30, 1895.

Counties.	Males.	Females.	Total.
Alameda	4	8	12
Amador	2	1	3
Butte	1	1	2
Colusa	3	0	3
Contra Costa	5	1	6
Fresno	2	0	2
Glenn	1	1	2
Humboldt	9	4	13
Lassen	2	0	2
Modoc	1	0	1
Monterey	1	0	1
Napa	20	13	33
Nevada	5	4	9
Placer	2	0	2
Plumas	1	1	2
Sacramento	6	4	10
San Benito	1	0	1
San Francisco	48	42	90
San Joaquin	1	0	1
Shasta	3	2	5
Sierra	4	0	4
Siskiyou	0	1	1
Solano	7	7	14
Sonoma	2	3	5
Sutter	0	1	1
Tehama	2	0	2
Yolo	2	2	4
Yuba	2	0	2
Totals	137	96	233

TABLE No. 2.

Nativity of 233 Patients Admitted from July 1, 1894, to June 30, 1895.

Nativity.	Males.	Females.	Total.
<i>United States.</i>			
Alaska	1	0	1
California	20	16	36
Illinois	5	1	6
Indiana	1	1	2
Iowa	0	2	2
Kentucky	2	2	4
Maine	4	1	5
Maryland	2	0	2
Massachusetts	0	1	1
Michigan	0	1	1
Missouri	2	1	3
New Jersey	0	1	1
New York	10	6	16
Nevada	1	0	1
Ohio	2	0	2
Pennsylvania	3	1	4
Tennessee	1	1	2
United States	7	5	12
Vermont	2	0	2
Virginia	3	1	4
West Virginia	1	0	1
Totals	67	41	108
<i>Foreign Countries.</i>			
America	1	0	1
Australia	1	0	1
Austria	1	0	1
Bavaria	1	0	1
Belgium	1	0	1
British Columbia	0	1	1
Canada	4	2	6
Central America	0	1	1
China	5	0	5
Denmark	2	4	6
England	6	3	9
France	2	2	4
Germany	13	8	21
Italy	8	0	8
Ireland	9	19	28
Japan	1	1	2
Mexico	1	1	2
New Brunswick	0	2	2
New Zealand	1	0	1
Norway	1	0	1
Nova Scotia	0	1	1
Poland	0	1	1
Portugal	1	0	1
Prussia	0	2	2
Scotland	3	2	5
South America	1	0	1
Sweden	1	2	3
Switzerland	2	3	5
Total	66	55	121
Unknown	4	0	4
<i>Recapitulation.</i>			
United States	67	41	108
Foreign Countries	66	55	121
Unknown	4	0	4
Totals	137	96	233

TABLE No. 3.

The Ages of 233 Patients at the time of their admission, from July 1, 1894, to June 30, 1895.

Ages.	Males.	Females.	Total.
Between 10 and 20 years.....	8	6	14
Between 20 and 30 years.....	28	22	50
Between 30 and 40 years.....	35	28	63
Between 40 and 50 years.....	26	23	49
Between 50 and 60 years.....	25	11	36
Between 60 and 70 years.....	10	3	13
Between 70 and 80 years.....	4	2	6
Between 80 and 90 years.....	0	1	1
Between 90 and 100 years.....	0	0	0
Unknown	1	0	1
Totals	137	96	233

TABLE No. 4.

Supposed Causes of Insanity in 233 Patients, as stated in commitments, admitted from July 1, 1894, to June 30, 1895.

Supposed Causes.	Males.	Females.	Total.
A brother's defeat for political office	1	0	1
Alcoholism	5	3	8
Burning of house	0	1	1
Childbirth	0	1	1
Death of children	0	2	2
Diarrhœa	1	0	1
Disappointment in love	0	1	1
Dropsy	0	1	1
Epilepsy	3	1	4
Erysipelas	1	0	1
Excessive venery	1	0	1
Fright	0	2	2
Grief	1	1	2
Head injury	7	0	7
Heredity	6	7	13
Idleness	1	0	1
Imbecility	0	1	1
La grippe	1	0	1
Loss of husband	0	1	1
Loss of money	2	1	3
Masturbation	12	0	12
Menopause	0	6	6
Morphomania	3	0	3
Murder of father	0	1	1
Old age	2	0	2
Organic disease of brain	7	3	10
Over-study	2	0	2
Over-work	1	1	2
Paralysis	2	0	2
Puerperal	0	3	3
Religion	1	1	2
Sexual weakness	1	0	1
Spiritualism	0	1	1
Suppressed menses	0	1	1
Starvation	1	0	1
Syphilis	2	2	4
Trouble	6	3	9
Unknown	66	50	116
Uterine trouble	0	1	1
Want	1	0	1
Totals	137	96	233

TABLE No. 5.

The Class of Insanity of 233 Patients, as stated in commitments, admitted from July 1, 1894, to June 30, 1895.

Class.	Males.	Females.	Total.
Acute mania	18	10	28
Acute melancholia	1	1	2
Chronic mania	3	4	7
Chronic melancholia	1	0	1
Dangerous idiocy	1	1	2
Delusional insanity	1	1	2
Dementia	11	6	17
Dementia (secondary)	1	0	1
Epileptic	2	1	3
General paresis	1	0	1
Imbecility	0	1	1
Mania	14	14	28
Melancholia	13	6	19
Monomania	6	1	7
Moral depravity	1	0	1
Paralytic dementia	1	0	1
Paresis	1	0	1
Paretic dementia	1	0	1
Puerperal mania	0	3	3
Puerperal melancholia	0	1	1
Primary dementia	1	1	2
Progressive melancholia	1	0	1
Recurrent mania	0	3	3
Recurrent melancholia	1	0	1
Religious mania	0	2	2
Senile dementia	3	1	4
Senile insanity	1	0	1
Softening after apoplexy	0	1	1
Unknown	53	38	91
Totals	137	96	233

TABLE No. 6.

Civil Condition of 233 Patients, as shown by commitments, admitted from July 1, 1894, to June 30, 1895.

Civil Condition.	Males.	Females.	Total.
Divorced	1	2	3
Married	45	45	90
Single	77	31	108
Unknown	7	2	9
Widows	-----	16	16
Widowers	7	-----	7
Totals	137	96	233

TABLE No. 7.

Occupations of 233 Patients, as stated in commitments, admitted from July 1, 1894, to June 30, 1895.

Occupations.	Males.	Females.	Total.
Baker	3	0	3
Barber	1	0	1
Bartender	2	0	2
Bookkeeper	1	0	1
Bootblack	1	0	1
Bricklayer	1	0	1
Butcher	1	0	1
Cabinet-maker	1	0	1
Canvasser	1	0	1
Carpenter	3	0	3
Carpenter and builder	1	0	1
Clerk	4	1	5
Compositor	1	0	1
Cook	1	0	1
Dairyman	1	0	1
Domestic	0	15	15
Engineer	1	0	1
Farmer	11	0	11
Fruiterer	1	0	1
Gardener	2	0	2
Horticulturist	1	0	1
Housekeeper	0	3	3
Housewife	0	53	53
Inventor	1	0	1
Jeweler	1	0	1
Laborer	38	0	38
Laundryman	1	0	1
Law clerk	1	0	1
Liquor-dealer	1	0	1
Machinist	6	0	6
Mason	1	0	1
Mechanic	1	0	1
Merchant	5	0	5
Miner	5	0	5
No occupation	17	21	38
Painter	2	0	2
Physician	2	0	2
Professor of languages	1	0	1
Reporter	1	0	1
Rigger	1	0	1
Saleslady	0	1	1
Saloonkeeper	1	0	1
School-teacher	0	1	1
Seaman	2	0	2
Stagedriver	1	0	1
Surveyor	1	0	1
Tailoress	0	1	1
Tanner	1	0	1
Teacher	1	0	1
Teamster	1	0	1
Unknown	2	0	2
Veterinary surgeon	1	0	1
Waiter	1	0	1
Woodchopper	1	0	1
Totals	137	96	233

TABLE No. 8.

Causes of Death of 115 Patients, from July 1, 1894, to June 30, 1895.

Date, and Cause of Death.	Nativity.	Age	Males	Females
1894.				
July—				
Addison's disease	Virginia	68	1	—
Consumption	Ireland	38	—	1
Consumption	China	37	1	—
Consumption	Sweden	51	—	1
Maniacal exhaustion	Australia	46	1	—
Old age	Ireland	94	1	—
Organic disease of brain, with exhaustion	Missouri	31	1	—
Organic disease of brain, with exhaustion	Canada	58	—	1
Organic disease of brain, with exhaustion	England	61	—	1
Organic disease of brain, with exhaustion	North Carolina	61	1	—
August—				
Dysentery	Ireland	37	—	1
Dysentery	Switzerland	36	—	1
Dysentery	New Brunswick	65	—	1
Dysentery	Virginia	60	1	—
Apoplexy	France	73	—	1
Consumption	Missouri	42	—	1
Exhaustion	New York	50	—	1
Old age	Scotland	69	—	1
Organic disease of brain	Italy	54	1	—
Organic disease of brain	France	33	1	—
Organic disease of brain	China	40	1	—
Organic disease of brain	China	35	1	—
Organic disease of brain, with exhaustion	Italy	35	1	—
Organic disease of brain, with exhaustion	Germany	58	1	—
September—				
Consumption	Ireland	71	—	1
Consumption	China	48	1	—
Dysentery	California	26	—	1
General paresis	China	42	1	—
Maniacal exhaustion	Ireland	45	1	—
Maniacal exhaustion	England	50	1	—
Organic disease of brain	New York	66	—	1
Organic disease of brain	Scotland	38	1	—
Organic disease of brain	Maine	61	—	1
Organic disease of brain, with maniacal exhaustion	Unknown	52	1	—
Peritonitis	Ireland	32	—	1
Suicide	Germany	63	1	—
October—				
Consumption	California	29	1	—
Dysentery	Nova Scotia	63	1	—
Dysentery	Germany	28	1	—
Dysentery	Unknown	29	—	1
Epilepsy	Virginia	43	1	—
Exhaustion	New York	35	1	—
Exhaustion	China	38	1	—
Exhaustion	Italy	33	1	—
Hemorrhage	Switzerland	30	1	—
Organic disease of brain	France	25	1	—
Organic disease of brain, with exhaustion	New York	44	—	1
Organic disease of brain, with exhaustion	Germany	62	1	—
Organic disease of brain, with exhaustion	Ireland	63	1	—
Organic disease of brain, with exhaustion	Ireland	47	—	1
Old age	Germany	79	1	—
November—				
Organic disease of nervous system	New York	46	1	—
Dysentery	New York	32	1	—
Exhaustion	Ireland	80	—	1
Exhaustion	Pennsylvania	61	1	—
Exhaustion	Ohio	72	1	—

TABLE No. 8—Continued.

Date, and Cause of Death.	Nativity.	Age	Males	Females
1894.				
November—Continued.				
Consumption	Massachusetts	35		1
Dysentery	Denmark	55	1	
Dysentery	Michigan	58		1
General exhaustion	California	34	1	
December—				
Dysentery	Ireland	76		1
Senile exhaustion	Tennessee	89		1
Heart disease	Ireland	51	1	
Organic disease of brain	Tennessee	56	1	
Consumption	Portugal	65		1
Consumption	Ohio	62		1
Dysentery	New York	28	1	
Organic disease of brain	Pennsylvania	44	1	
Organic disease of brain	Sweden	42	1	
1895.				
January—				
Senile exhaustion	New York	85		1
Acute melancholia, with exhaustion	England	41	1	
Organic disease of brain	Ireland	33	1	
Suicide	New York	48	1	
Consumption	China	unk	1	
Organic disease of brain	Illinois	44	1	
Organic disease of brain	California	38	1	
Exhaustion	New York	52		1
Epilepsy	California	24		1
Organic disease of brain, with exhaustion	Ireland	55	1	
Organic disease of brain, with exhaustion	England	87	1	
February—				
Organic disease of brain	England	39	1	
Epilepsy	California	31	1	
Organic disease of brain	Maine	60		1
Consumption	Ireland	56		1
Senile exhaustion	Ireland	68	1	
Exhaustion	Iowa	50		1
Consumption	Scotland	37		1
Exhaustion	Ireland	80	1	
Cerebral effusion	New York	54	1	
March—				
Organic disease of brain	Missouri	52	1	
Organic disease of brain	Missouri	32		1
Consumption	Austria	31	1	
Edema of the lungs	California	52		1
Exhaustion	China	42	1	
Consumption	China	40	1	
April—				
Organic disease of brain	Massachusetts	41	1	
Heart disease	Ireland	51		1
Consumption	California	37	1	
Organic disease of brain	California	32	1	
Organic disease of brain	New York	68		1
Exhaustion	United States	59		1
Epilepsy	Utah Territory	41	1	
Senile exhaustion	Maine	75	1	
Organic disease of brain	Virginia	75	1	
May—				
Organic disease of brain	Norway	63	1	
Exhaustion	Germany	62	1	
Consumption	Ireland	51		1
Consumption	Massachusetts	43		1
Consumption	Missouri	33	1	
Exhaustion	France	63		1
June—				
Consumption	Ireland	34	1	
Consumption	California	29	1	
Organic disease of brain, with exhaustion	Ireland	59	1	
Consumption	California	28		1
Epilepsy	California	39	1	

TABLE No. 9.

Recapitulation of the Causes of Death of 115 Patients, from July 1, 1894, to June 30, 1895.

Causes of Death.	Males.	Females.	Total.
Addison's disease.....	1	0	1
Apoplexy.....	0	1	1
Acute melancholia, with exhaustion.....	1	0	1
Cerebral effusion.....	1	0	1
Consumption.....	10	12	22
Dysentery.....	6	7	13
Epilepsy.....	4	1	5
Exhaustion.....	8	6	14
Edema of the lungs.....	0	1	1
General exhaustion.....	1	0	1
General paresis.....	1	0	1
Heart disease.....	1	1	2
Hemorrhage.....	1	0	1
Maniacal exhaustion.....	3	0	3
Old age.....	2	1	3
Organic disease of brain.....	18	5	23
Organic disease of brain, with exhaustion.....	9	4	13
Organic disease of nervous system.....	1	0	1
Organic disease of brain, with maniacal exhaustion.....	1	0	1
Peritonitis.....	0	1	1
Senile exhaustion.....	2	2	4
Suicide.....	2	0	2
Totals.....	73	42	115

STATEMENT

Showing the Number of Articles Made in Sewing-room (Female Department) from July 1, 1894, to July 1, 1895.

Articles.	Number.	Articles.	Number.
Aprons.....	1,198	Pillowcases, colored.....	798
Basques.....	12	Pillowcases, coffin.....	60
Bath towels.....	280	Pillowticks.....	30
Bibs.....	24	Roller towels.....	876
Bolster cases.....	3	Sacques.....	19
Brown sheets.....	1,679	Sheet shams.....	206
Camisoles.....	34	Shrouds.....	69
Capes, water-proof.....	12	Skirts, denim.....	28
Canton flannel skirts.....	4	Sleeves, pairs.....	44
Chemises.....	507	Sunbonnets.....	189
Counterpanes, hemmed.....	42	Suspenders, pairs.....	408
Drawers, pairs.....	395	Straw ticks.....	165
Dresses.....	328	Tray cloths.....	12
Flannel skirts.....	528	Undervests.....	414
Jumpers.....	4	Underwaists.....	6
Linen tablecloths.....	106	White sheets.....	184
Napkins.....	168	Wrappers, private.....	2
Nightgowns.....	99	Total.....	9,694
Pillowcases, white.....	761		

STATISTICAL TABLES FOR 1895-96.

TABLE No. 1.

Counties from which 247 Patients were Admitted—from July 1, 1895 to June 30, 1896.

Counties.	Males.	Females.	Total.
Alameda	2	5	7
Amador	2	1	3
Butte	2	2	4
Colusa	1	0	1
Contra Costa	6	4	10
Fresno	2	0	2
Glenn	0	1	1
Humboldt	9	2	11
Kern	1	0	1
Lassen	0	1	1
Napa	20	5	25
Nevada	6	1	7
Placer	2	0	2
Sacramento	11	6	17
San Francisco	56	46	102
Santa Clara	0	1	1
Solano	9	5	14
Sonoma	2	3	5
Sutter	1	2	3
Shasta	7	2	9
Siskiyou	5	1	6
Sierra	2	1	3
Tehama	3	0	3
Unknown	1	0	1
Yolo	4	4	8
Totals	154	93	247

TABLE No. 2.

Nativity of 247 Patients, Admitted from July 1, 1895, to June 30, 1896.

Nativity.	Males.	Females.	Total.
<i>United States.</i>			
California	25	23	48
Connecticut	1	0	1
District of Columbia	0	1	1
Florida	1	0	1
Illinois	1	2	3
Indiana	1	0	1
Iowa	1	0	1
Kentucky	1	0	1
Maryland	0	1	1
Michigan	1	1	2
Mississippi	0	1	1
Missouri	4	1	5
Maine	2	1	3
Massachusetts	1	2	3
New York	9	5	14
New Jersey	3	0	3
North Carolina	1	0	1
Ohio	0	2	2
Pennsylvania	2	2	4
South Carolina	2	1	3
Tennessee	0	1	1
Texas	0	1	1
United States	7	6	13
Virginia	2	1	3
Wisconsin	2	1	3
Totals	67	53	120
<i>Foreign Countries.</i>			
Alsace	1	0	1
America	3	0	3
Austria	3	0	3
Australia	1	0	1
Canada	9	1	10
Denmark	2	0	2
England	9	3	12
Finland	2	1	3
France	2	1	3
Germany	19	12	31
Ireland	13	12	25
India	0	1	1
Italy	5	1	6
Mexico	2	0	2
New Brunswick	1	0	1
Portugal	1	1	2
Russia	1	0	1
Sweden	2	2	4
Switzerland	4	2	6
Scotland	0	1	1
Wales	2	0	2
Totals	82	38	120
Unknown	5	2	7
<i>Recapitulation.</i>			
United States	67	53	120
Foreign Countries	82	38	120
Unknown	5	2	7
Totals	154	93	247

TABLE No. 3.

*The Ages of 247 Patients at the time of their Admission into the Asylum,
from July 1, 1895, to June 30, 1896.*

Ages.	Males.	Females.	Total.
Between 10 and 20 years.....	6	8	14
Between 20 and 30 years.....	35	27	62
Between 30 and 40 years.....	33	23	56
Between 40 and 50 years.....	29	8	37
Between 50 and 60 years.....	20	11	31
Between 60 and 70 years.....	17	9	26
Between 70 and 80 years.....	6	1	7
Between 80 and 90 years.....	2	2	4
Unknown.....	6	4	10
Totals.....	154	93	247

TABLE No. 4.

Supposed Causes of Insanity in 247 Patients, as stated in commitments, admitted from July 1, 1895, to June 30, 1896.

Supposed Causes.	Males.	Females.	Total.
Alcoholism	8	1	9
Apoplexia-cerebri	1	0	1
Business trouble	4	0	4
Congenital	0	1	1
Cerebral hemorrhage	1	0	1
Childbirth	0	2	2
Congestion of the brain	0	1	1
Death of son	0	1	1
Disappointment in love	1	0	1
Degenerated sexual functions	0	2	2
Epilepsy and head injury	0	1	1
Epilepsy	0	4	4
Fright	1	0	1
Head injury	7	0	7
Heredity	3	5	8
Hysterics	0	1	1
Ill-treatment by husband	0	1	1
Ill-health	1	0	1
Jealousy	1	0	1
Living alone	1	0	1
La grippe	0	3	3
Masturbation	11	0	11
Morphine, opium, and cocaine	3	1	4
Malnutrition	1	0	1
Nursing of child	0	1	1
Negligence	1	0	1
Over-study	1	2	3
Organic disease of brain	2	0	2
Old age	2	0	2
Partus	0	1	1
Rush of blood to head	1	0	1
Religion	2	3	5
Spiritualism	1	2	3
Sunstroke	1	0	1
Speedy living	0	1	1
Senility	4	1	5
Softening of brain	1	0	1
Suppressed menses	0	2	2
Syphilis	1	0	1
Sexual excess	2	0	2
Traumatic	1	0	1
Unknown	89	51	140
Uterine trouble	0	2	2
Worry	1	3	4
Totals ..	154	93	247

TABLE No. 5.

The Class of Insanity of 247 Patients as stated in commitments, admitted from July 1, 1895, to June 30, 1896.

Class.	Males.	Females.	Total.
Acute dementia.....	1	1	2
Acute mania.....	14	9	23
Acute recurrent mania.....	2	1	3
Acute melancholia.....	1	0	1
Alcoholic insanity.....	1	0	1
Chronic mania.....	5	3	8
Chronic recurrent mania.....	1	0	1
Chronic melancholia.....	0	4	4
Dementia.....	8	0	8
Epilepsy.....	2	1	3
Epileptic mania.....	0	1	1
Epileptic melancholia.....	1	0	1
Hysterical mania.....	0	3	3
Imbecility.....	2	0	2
Monomania.....	6	2	8
Melancholia and dementia.....	0	2	2
Melancholia.....	10	3	13
Mania.....	16	5	21
Marked recurrent epilepsy.....	1	0	1
Melancholia, with maniacal attacks.....	0	1	1
Paretic dementia.....	0	1	1
Primary dementia.....	3	0	3
Recurrent mania.....	6	2	8
Recurrent melancholia.....	1	0	1
Senile dementia.....	6	3	9
Sub-acute mania.....	1	1	2
Secondary dementia.....	1	0	1
Unknown.....	65	50	115
Totals.....	154	93	247

TABLE No. 6.

Civil Condition of 247 Patients, as shown by commitments, admitted from July 1, 1895, to June 30, 1896.

Civil Condition.	Males.	Females.	Total.
Divorced.....	0	2	2
Married.....	42	41	83
Single.....	92	30	122
Unknown.....	17	6	23
Widows.....	.....	14	14
Widowers.....	3	.....	3
Totals.....	154	93	247

TABLE No. 7.

Occupation of 247 Patients, as stated in commitments, admitted from July 1, 1895, to June 30, 1896.

Occupation.	Males.	Females.	Total.
Architect.....	2	0	2
Barber.....	1	0	1
Blacksmith.....	2	0	2
Butcher.....	1	0	1
Brewer.....	1	0	1
Clerk.....	5	0	5
Carpenter.....	6	0	6
Canmaker.....	1	0	1
Cook.....	1	2	3
Compositor.....	1	0	1
Collector.....	1	0	1
Cigarmaker.....	1	0	1
Elevator boy.....	1	0	1
Farmer.....	12	0	12
Grainer.....	1	0	1
Glovesmaker.....	0	1	1
Housewife.....	0	36	36
Housekeeper.....	0	7	7
Housemaid.....	0	5	5
Hostler.....	1	0	1
Journalist.....	1	0	1
Laborer.....	43	0	43
Lumberman.....	1	0	1
Merchant.....	5	1	6
Miner.....	11	0	11
Machinist.....	2	0	2
Mattress-maker.....	1	0	1
Nurse.....	0	3	3
Painter.....	2	0	2
Physician.....	2	0	2
Prospector.....	1	0	1
Puella-publica.....	0	1	1
Shoemaker.....	5	0	5
Stonecutter.....	1	0	1
Sailor.....	4	0	4
Saddler.....	1	0	1
Soldier.....	1	0	1
Stockbuyer.....	1	0	1
Salesman.....	1	0	1
Sheep-raiser.....	1	0	1
Servant.....	0	5	5
Schoolgirl.....	0	1	1
School-teacher.....	1	0	1
Student.....	0	1	1
Saloonkeeper.....	1	0	1
Teacher.....	0	1	1
Teamster.....	3	0	3
Tailor.....	2	0	2
Tanner.....	2	0	2
Turner.....	1	0	1
Tramp.....	1	0	1
Tinsmith.....	1	0	1
Tallyman.....	1	0	1
Unknown.....	18	29	47
Woodchopper.....	1	0	1
Totals.....	154	93	247

TABLE No. 8.

Causes of Death of 97 Patients from July 1, 1895, to June 30, 1896.

Date, and Cause of Death.	Nativity.	Age	Males	Females
1895.				
July—				
Consumption	Germany	49	—	1
Consumption	California	34	—	1
Organic disease of brain	Illinois	54	1	—
Organic disease of brain	Mexico	55	1	—
Heart disease	Pennsylvania	40	1	—
August—				
Organic disease of brain	Ireland	46	1	—
Organic disease of brain	New York	39	1	—
Consumption	Japan	27	1	—
Consumption	Italy	45	1	—
Organic disease of brain	California	34	1	—
Tuberculosis intestinum	Germany	37	—	1
Suicide	Illinois	49	—	1
Apoplexy	Ireland	95	1	—
Exhaustion	France	43	—	1
September—				
Consumption	Ireland	35	1	—
Consumption	California	28	—	1
Exhaustion	Germany	Unk.	1	—
Consumption	California	40	—	1
Apoplexy	California	39	—	1
Suicide	California	21	1	—
October—				
Heart disease	Finland	48	1	—
Organic disease of brain, with exhaustion	New York	61	1	—
Organic disease of brain, with exhaustion	Austria	46	1	—
Exhaustion	Ireland	51	—	1
Hemorrhage of bowels	Ireland	Unk.	—	1
Organic disease of brain	Maine	51	1	—
Organic disease of brain, with exhaustion	Germany	62	1	—
Organic disease of brain	Louisiana	37	1	—
Organic disease of brain	China	46	1	—
Organic disease of brain	Azores Islands	43	1	—
Organic disease of brain, with exhaustion	Canada	64	1	—
Consumption	America	22	—	1
November—				
Consumption	China	55	1	—
Epilepsy	America	38	1	—
Consumption	South America	26	1	—
Organic disease of brain, with exhaustion	Pennsylvania	79	1	—
Hypostatic pneumonia	California	20	—	1
Organic disease of brain, with exhaustion	Germany	55	—	1
Organic disease of brain	Unknown	42	—	1
Organic disease of brain	Italy	35	1	—
December—				
Epilepsy	England	34	—	1
Exhaustion	New York	76	1	—
Organic disease of brain	Ireland	Unk.	—	1
Organic disease of brain, with exhaustion	New York	58	1	—
Organic disease of brain, with exhaustion	Ireland	66	—	1
Organic disease of brain, with exhaustion	Austria	54	1	—
Enteritis	England	66	—	1
1896.				
January—				
Bronchitis	Ireland	69	—	1
Senile exhaustion	Maine	67	—	1
Organic disease of brain, with exhaustion	Ireland	58	1	—
Organic disease of brain	Ireland	Unk.	1	—
Organic disease of brain	Germany	46	1	—
Organic disease of brain	Germany	46	1	—
Organic disease of brain	Germany	36	1	—

TABLE No. 8—Continued.

Date, and Cause of Death.	Nativity.	Age	Males	Females
1896.				
January—Continued.				
Organic disease of brain, with exhaustion	Wales	73	1	.....
Acute melancholia	New Brunswick	56	1	.....
General paresis	New York	43	1	.....
February—				
Organic disease of brain, with exhaustion	Ireland	53	1	.....
Senile exhaustion	Tennessee	70	.....	1
Organic disease of brain, with exhaustion	Unknown	44	1	.....
Consumption	California	29	1	.....
Consumption	United States	37	1	.....
Organic disease of brain	United States	38	1	.....
March—				
Consumption	California	30	.....	1
Organic disease of brain	California	34	1	.....
Organic disease of brain	Bohemia	73	1	.....
Paralysis	Switzerland	29	1	.....
Senile dementia	Ohio	59	1	.....
Organic disease of brain, with exhaustion	California	37	1	.....
Consumption	Italy	Unk.	1	.....
Organic disease of brain, with exhaustion	Sweden	49	.....	1
Organic disease of brain	Germany	59	1	.....
April—				
Consumption	England	52	1	.....
Organic disease of brain	Ireland	53	1	.....
Organic disease of brain, with exhaustion	Ireland	66	.....	1
Epilepsy	United States	28	1	.....
Consumption	Ohio	37	.....	1
Organic disease of brain, with exhaustion	Ireland	61	.....	1
Organic disease of brain	France	44	1	.....
Maniacal exhaustion, with hypostatic pneumo- nia	Maine	60	.....	1
Consumption	Ireland	52	1	.....
May—				
Organic disease of brain	Ireland	29	.....	1
Exhaustion	United States	65	1	.....
Exhaustion	Ireland	Unk.	.....	1
Exhaustion	Maine	69	1	.....
Paresis	United States	41	1	.....
Exhaustion	Ireland	58	.....	1
Exhaustion	Maine	54	1	.....
Organic disease of brain, with exhaustion	California	31	1	.....
Exhaustive mania	Scotland	34	.....	1
June—				
Exhaustion	England	63	.....	1
Senile exhaustion	New York	77	.....	1
Organic disease of brain	New York	63	1	.....
Consumption	China	42	1	.....
Paralysis with exhaustion	New York	60	.....	1
Exhaustion	Canada	42	.....	1
Exhaustion	Ohio	49	.....	1

TABLE No. 9.

Recapitulation of the Causes of Death of 97 Patients, from July 1, 1895, to June 30, 1896.

Causes of Death.	Males.	Females.	Total.
Apoplexy	1	1	2
Acute melancholia	1	0	1
Bronchitis	0	1	1
Consumption	11	7	18
Exhaustion	5	7	12
Enteritis	0	1	1
Epilepsy	2	1	3
Exhaustive mania	0	1	1
General paresis	1	0	1
Heart disease	2	0	2
Hemorrhage of bowels	0	1	1
Hypostatic pneumonia	0	1	1
Maniacal exhaustion, with hypostatic pneumonia	0	1	1
Organic disease of brain	21	3	24
Organic disease of brain, with exhaustion	13	5	18
Paralysis	1	0	1
Paralysis with exhaustion	0	1	1
Paresis	1	0	1
Senile dementia	1	0	1
Senile exhaustion	0	3	3
Suicide	1	1	2
Tuberculosis intestinum	0	1	1
Totals	61	36	97

STATEMENT

Showing the Number of Articles Made in Sewing-Room (Female Department) from July 1, 1895, to July 1, 1896.

Articles.	Number.	Articles.	Number.
Aprons	1,132	Pillowticks	22
Bath towels	288	Roller towels	936
Bibs	38	Sacques	15
Bolster cases	3	Sheets, Utica	1,952
Camisoles	14	Sheet shams	84
Canton flannel skirts	12	Sleeves, pairs	33
Chemises	435	Skirts, denim	13
Capes, water-proof	71	Shrouds	69
Counterpanes, hemmed	46	Sunbonnets	246
Drawers, pairs	411	Suspenders, pairs	264
Dresses	377	Straw ticks	194
Flannel skirts	526	Tray cloths	6
Linen tablecloths	142	Undervests	600
Napkins	132	Underwaists	22
Nightgowns	127	White sheets	186
Pillowcases, white	582		
Pillowcases, colored	642	Total	9,660
Pillowcases, coffin	60		

STATEMENT

*Showing the Number of Articles Made in Tailor Shop (Male Department)
from April 14, 1895, to June 30, 1896.*

Articles.	Number.	Articles.	Number.
Coats	1,103	Bath towels	270
Vests	277	Roller towels	156
Pants	1,493	Suspenders	74
Overshirts	1,510	Sham sheets	24
Undershirts	1,187	Camisoles	38
Drawers	1,353	Combination suits	60
Overalls	401	Overcoats	9
Jumpers	134	Pantry aprons	50
Bedticks	61	Carpenter aprons	18
Sheets	444		
Colored pillowslips	191		
White pillowslips	40	Total	8,873

STEWARD'S REPORT.

FOR THE FISCAL YEAR 1894-95.

TABLE No. 1.

Amount of Articles Purchased and Consumed, and Other Expenses, for the fiscal year ending June 30, 1895.

Articles.	Value.	Articles.	Value.
Flour.....	\$6,945 41	Blankets.....	\$1,195 14
Meat.....	16,853 48	Furniture and crockery.....	2,018 82
Sugar.....	2,800 27	Hardware and tinware.....	5,553 47
Tea.....	929 67	Spoons and cutlery.....	41 60
Syrup.....	471 05	Carpeting.....	691 61
Potatoes.....	2,079 36	Grain and feed.....	2,356 04
Butter.....	8,979 57	Garden tools and seed.....	71 68
Coffee and chicory.....	2,974 91	Lumber.....	2,740 21
Lard.....	114 73	Repairs.....	993 32
Fish.....	1,202 92	Brooms and brushes.....	472 75
Poultry and eggs.....	2,698 84	Books and stationery.....	120 75
Beans.....	413 04	Gas.....	2,182 79
Rice and cracked wheat.....	887 63	Paints, oils, and glass.....	1,195 16
Cornmeal and oatmeal.....	456 12	Fuel.....	12,105 64
Fruit.....	719 41	Castings, pipe, and iron.....	200 87
Vegetables.....	57 52	Payroll.....	93,077 89
Salt.....	129 25	Trustees' services and mileage.....	677 00
Vinegar and pickles.....	231 32	Telegraphing and telephoning.....	136 50
Small groceries.....	1,969 50	Postage, freight, and expressage.....	967 65
Soap.....	1,329 48	Advertising.....	240 00
Drugs.....	1,324 06	Cumberland coal.....	67 40
Liquor.....	328 07	Bedding.....	361 20
Tobacco.....	772 40	Ice.....	11 67
Dry goods.....	4,156 18	Miscellaneous.....	2,372 14
Clothing and hats.....	4,112 01		
Shoes and leather.....	2,251 87	Total.....	\$195,039 37

TABLE No. 2.

Showing the Cost of the Different Departments for the fiscal year ending June 30, 1895.

Departments.	Cost.	Departments.	Cost.
Kitchen and dining-rooms.....	\$43,400 30	Payroll.....	\$93,077 89
Wards.....	11,141 85	Coombs' ranch.....	239 54
Bakery.....	7,171 97	Spencer Creek ranch.....	233 71
Laundry.....	1,676 66	Night watch.....	88 28
Engine-room.....	307 70	Tinshop.....	327 47
Farm, garden, dairy, and stable.....	3,752 42	Blacksmith-shop.....	271 81
Trustees' services.....	677 00	Advertising.....	240 00
Repairs.....	7,688 22	Tailor-shop.....	580 82
Drug-store.....	1,501 06	Sewing-room.....	3,511 11
Center building.....	1,555 26	Miscellaneous.....	2,067 66
Office.....	1,240 21		
Gas.....	2,182 79	Total.....	\$195,039 37
Fuel.....	12,105 64		

TABLE No. 3.

Averages for the fiscal year ending June 30, 1895.

Months.	Average No. of Patients Daily.	Average Daily Expenses.	Average Cost per Capita per Day.	Average Cost per Capita per Month.
1894—July	1,323	\$479 49	\$0 36 $\frac{2}{10}$	\$11 235
August	1,318	516 50	39 $\frac{7}{10}$	12 148
September	1,319	505 15	38 $\frac{1}{10}$	11 489
October	1,320	514 48	39	12 082
November	1,318	564 49	42 $\frac{8}{10}$	12 848
December	1,322	541 43	41	12 696
1895—January	1,316	537 66	40 $\frac{8}{10}$	12 665
February	1,324	562 56	42 $\frac{5}{10}$	11 897
March	1,330	498 09	37 $\frac{3}{10}$	11 609
April	1,340	509 14	38	11 398
May	1,351	464 18	34 $\frac{4}{10}$	10 651
June	1,351	727 23	53 $\frac{1}{10}$	16 148
Averages	1,327 $\frac{2}{3}$	\$535 03	\$0 40 $\frac{3}{10}$	\$12 239

TABLE No. 4.

Products of the Farm, Garden, and Dairy for the fiscal year ending June 30, 1895.

Articles.	Amount.	Articles.	Amount.
Apples	Lbs. 29,859	Lard	Lbs. 2,614
Apples (dried)	Lbs. 192	Milk	Gals. 34,727
Almonds	Lbs. 185	Nectarines	Lbs. 2,640
Apricots	Lbs. 2,600	Onions	Lbs. 42,834
Beets	Lbs. 45,999	Peppers	Lbs. 385
Beans	Lbs. 1,575	Peas	Lbs. 2,438
Beets (cow)	Lbs. 236,000	Pears	Lbs. 18,830
Cabbage	Lbs. 74,492	Pears (dried)	Lbs. 818
Carrots	Lbs. 40,130	Parsnips	Lbs. 11,174
Corn (green)	Doz. 2,372	Pumpkins	Lbs. 575
Corn (fodder)	Doz. 44,000	Plums	Lbs. 3,680
Celery	Doz. 5,007	Prunes	Lbs. 11,160
Cauliflower	Doz. 4,007	Peaches	Lbs. 19,280
Chickens	Doz. 11 $\frac{1}{6}$	Raspberries	Lbs. 400
Ducks	Doz. 4	Squash	Lbs. 84
Eggs	Doz. 3,047 $\frac{1}{2}$	Turnips	Lbs. 7,831
Grapes	Lbs. 28,160	Tomatoes	Lbs. 18,332
Geese	Doz. 1 $\frac{1}{2}$	Walnuts	Lbs. 150
Hops	Lbs. 5	Veal furnished Asylum (No. of calves, 59)	Lbs. 5,043
Horseradish	Lbs. 36	Pork furnished Asylum (No. of hogs, 60)	Lbs. 9,577
Hay	Lbs. 480,140	Pork sold	\$705 70
Kale	Lbs. 2,052		
Lettuce	Lbs. 1,819		

FOR THE FISCAL YEAR 1895-96.

TABLE No. 1.

Amount of Articles Purchased and Consumed, and Other Expenses, for the fiscal year ending June 30, 1896.

Articles.	Value.	Articles.	Value.
Flour	\$6,534 66	Furniture and crockery	\$300 32
Meat	17,700 08	Hardware and tinware	2,507 02
Sugar	2,889 14	Spoons and cutlery	111 26
Tea	878 01	Carpeting	543 90
Syrup	515 11	Grain and feed	1,831 34
Potatoes	2,071 09	Garden seed and tools	380 39
Butter	7,899 69	Lumber	630 40
Chicory and coffee	3,247 16	Repairs	493 48
Lard	55 19	Brooms and brushes	453 66
Fish	1,184 02	Books and stationery	129 60
Poultry and eggs	1,823 39	Gas	2,158 76
Beans	271 23	Paints, oil, and glass	981 83
Rice and cracked wheat	771 08	Fuel	10,378 38
Cornmeal and oatmeal	393 65	Castings, pipe, and iron	291 18
Fruit	468 28	Payroll	93,480 69
Salt	135 85	Trustees' services and mileage	667 00
Vinegar and pickles	141 24	Telegraphing and telephoning	130 60
Small groceries	1,710 13	Postage, freight, and express- age	580 90
Soap	481 79	Advertising	210 00
Drugs	1,471 72	Cumberland coal	67 00
Liquor	127 75	Bedding	76 50
Tobacco	1,266 52	Trees	53 20
Dry goods	6,950 38	Miscellaneous	2,666 13
Clothing and hats	1,295 41		
Shoes and leather	2,360 26		
Blankets	1,028 80	Total	\$182,789 17

TABLE No. 2.

Showing the Cost of the Different Departments for the fiscal year ending June 30, 1896.

Departments.	Cost.	Departments.	Cost.
Kitchen and dining-rooms	\$41,753 90	Payroll	\$93,480 69
Wards	7,794 85	Coombs' ranch	179 57
Bakery	6,703 34	Spencer Creek ranch	153 20
Laundry	478 37	Night watch	115 09
Engine-room	72 79	Tinshop	291 55
Farm, garden, dairy, and stable	2,999 62	Blacksmith-shop	222 56
Trustees' services	667 00	Advertising	210 00
Repairs	4,020 18	Tailor-shop	2,803 44
Drug-store	1,588 59	Sewing-room	3,962 62
Center building	640 72	Miscellaneous	1,268 57
Office	845 38		
Gas	2,158 76		
Fuel	10,378 38	Total	\$182,789 17

TABLE No. 3.

Averages for the fiscal year ending June 30, 1896.

Months.	Average No. of Patients Daily.	Average Daily Expenses.	Average Cost per Capita per Day.	Average Cost per Capita per Month.
1895—July	1,358	\$465 84	\$0 34 $\frac{3}{10}$	\$10 634
August	1,359	486 00	35 $\frac{8}{10}$	11 086
September	1,357	484 05	35 $\frac{7}{10}$	10 70
October	1,365	500 19	36 $\frac{7}{10}$	11 352
November	1,379	524 29	38	11 406
December	1,376	523 59	38	11 796
1896—January	1,382	531 66	38 $\frac{5}{10}$	11 926
February	1,374	542 24	39 $\frac{5}{10}$	11 466
March	1,370	500 48	36 $\frac{5}{10}$	11 324
April	1,367	497 23	36 $\frac{4}{10}$	10 912
May	1,378	470 37	34 $\frac{1}{10}$	10 581
June	1,392	469 13	33 $\frac{1}{10}$	10 111
Averages	1,371 $\frac{5}{12}$	\$499 59	\$0 36 $\frac{4}{10}$	\$11 108

TABLE No. 4.

Products of the Farm, Garden, and Dairy for the fiscal year ending June 30, 1896.

Articles.	Amount.	Articles.	Amount.
Apples.....Lbs.	28,440	Olives.....Lbs.	225
Beets.....Lbs.	29,089	Oats.....Lbs.	71,158
Beans.....Lbs.	2,349	Peppers.....Lbs.	929
Beets (cow).....Lbs.	147,400	Pumpkins.....Lbs.	24,675
Cabbage.....Lbs.	106,049	Parsnips.....Lbs.	6,392
Carrots.....Lbs.	46,114	Peas.....Lbs.	3,579
Cucumbers.....Lbs.	3,931	Peaches.....Lbs.	4,150
Corn (green).....Doz.	854	Pears.....Lbs.	1,400
Corn (seed).....Lbs.	2,200	Plums.....Lbs.	5,080
Celery.....Lbs.	1,834	Prunes.....Lbs.	10,320
Corn (fodder).....Lbs.	214,389	Raspberries.....Lbs.	1,260
Cherries.....Lbs.	5,320	Radishes.....Lbs.	3,924
Charcoal.....Sks.	326	Squash.....Lbs.	3,630
Chickens.....Doz.	22	Straw.....Bales.	693
Ducks.....Doz.	1 $\frac{1}{2}$	Tomatoes.....Lbs.	22,704
Eggs.....Doz.	3,871 $\frac{1}{2}$	Turnips.....Lbs.	7,241
Figs.....Lbs.	880	Turkeys.....Doz.	1 $\frac{1}{2}$
Garlic.....Lbs.	40	Wheat.....Lbs.	12,600
Grapes.....Lbs.	24,520	Pigs furnished Asylum	
Geese.....Doz.	1 $\frac{1}{2}$	(Number, 4).....Lbs.	59
Hay.....Tons.	312	Pork furnished Asylum	
Kale.....Lbs.	8,233	(No. of hogs, 92).....Lbs.	17,949
Lettuce.....Lbs.	4,811	Veal furnished Asylum	
Lard.....Lbs.	3,667	(No. of calves, 63).....Lbs.	5,605
Milk.....Gals.	30,876	Calves sold.....	\$20 00
Nectarines.....Lbs.	760	Pigs sold.....	\$3 00
Onions.....Lbs.	53,860		

METEOROLOGICAL TABLE.

The following table shows the average mean, maximum, and minimum; also highest and lowest temperature per month and per year, from November, 1876, to June 30, 1896; also rainfall for same period. Observations taken three times daily, by Wm. H. Martin, Pharmacist.

Years.	July.						August.					
	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall
1876-77												
1877-78	67.9	92	51	80.3	55.5	.11	64.2	84	48	76.2	52.2	.01
1878-79	64.5	89	48	77.0	52.0	.00	64.5	86	48	75.8	53.2	.00
1879-80	64.0	82	48	75.1	52.6	.00	64.9	96	48	77.0	52.8	.00
1880-81	63.4	87	48	74.2	52.6	.00	62.2	84	45	74.3	50.2	.00
1881-82	65.9	89	44	78.4	53.5	.00	63.0	83	47	75.4	50.6	.00
1882-83	63.8	85	47	75.3	52.3	.00	62.4	82	46	73.7	51.1	.00
1883-84	63.4	96	48	74.7	52.1	.00	63.4	89	42	76.2	50.6	.00
1884-85	64.3	88	48	76.8	51.9	.00	62.8	84	48	76.2	49.4	.00
1885-86	64.2	86	52	73.3	55.1	.00	63.4	91	49	73.2	53.6	.00
1886-87	66.0	88	48	76.9	55.1	.00	65.6	87	50	77.2	54.0	.00
1887-88	61.0	82	44	71.5	50.5	.00	60.6	84	45	70.4	50.8	.00
1888-89	65.1	91	46	76.1	54.1	.03	65.9	90	51	77.3	54.5	.00
1889-90	63.0	89	50	73.7	52.3	.00	63.3	86	46	75.4	51.2	.00
1890-91	63.9	87.5	46	75.7	52.1	.00	63.1	86	47	73.8	52.4	.00
1891-92	65.0	91	46	77.2	52.8	.18	65.9	97	48	78.1	53.7	.00
1892-93	66.0	98	49	77.9	54.1	.00	67.3	97.5	50	78.2	56.3	.00
1893-94	66.9	92	50	79.3	54.5	.00	65.9	87	49	77.5	54.3	.00
1894-95	68.5	92.5	54	80.2	57.0	.00	69.6	102	56	79.9	58.3	.04
1895-96	67.4	93	51	78.1	56.8	.03	67.2	91	50	78.7	55.7	.00
Averages	64.9			76.4	53.5	.02	64.4			76.0	52.8	.00
Years.	September.						October.					
	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall
1876-77												
1877-78	65.5	92	44	79.0	52.0	.00	58.0	84	36	69.3	46.7	.69
1878-79	61.6	90	42	74.3	48.9	1.49	58.8	82	40	70.0	47.7	2.54
1879-80	63.3	86	47	77.0	49.7	.00	60.7	87	40	74.8	46.6	.83
1880-81	61.5	85	43	74.4	48.6	.00	56.1	79	40	65.9	46.3	.00
1881-82	61.6	88	44	74.2	49.1	.26	53.9	74	33	64.1	43.7	.47
1882-83	63.7	85	42	73.5	54.0	.48	55.5	76	37	64.6	46.4	2.93
1883-84	64.2	93	47	76.1	52.3	1.10	55.6	79	39	63.6	47.6	1.69
1884-85	58.0	79	40	70.3	45.7	.21	54.4	77	38	64.6	44.2	1.62
1885-86	62.8	85	48	72.8	52.9	.07	58.6	84	42	68.1	49.2	.62
1886-87	62.0	88	43	73.0	51.0	.00	54.9	74	34	64.1	45.7	.89
1887-88	62.4	86	44	73.7	51.1	.22	61.2	87	38	72.8	49.6	.00
1888-89	65.1	90	49	75.6	54.6	1.08	59.3	81	42	70.0	48.6	.00
1889-90	64.4	90	45	76.4	52.4	.00	57.7	84	40	65.3	50.1	5.40
1890-91	61.1	80	44	71.7	50.5	.43	58.3	79	38	70.0	46.7	.02
1891-92	62.6	85	44	73.7	51.6	.85	58.2	82	38	69.1	47.3	.24
1892-93	64.4	88	48	75.4	53.4	T.	60.3	83	39	71.2	49.4	1.58
1893-94	62.6	82	46	73.4	51.9	.19	58.2	81	40	69.7	46.7	.17
1894-95	69.5	95	47	82.2	56.8	1.23	61.8	90.7	45	72.3	51.5	1.93
1895-96	65.4	90	49	76.1	54.6	1.16	63.1	87	44	73.9	52.3	.03
Averages	63.2			74.8	51.6	.46	58.1			68.6	47.7	1.14

METEOROLOGICAL TABLE—Continued.

Years.	November.						December.					
	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall
1876-77	53.9	79	29	72.9	34.9	.58	46.2	67	28	57.4	35.0	0.00
1877-78	52.6	72	38	61.1	44.2	1.82	46.8	64	31	55.0	38.6	1.86
1878-79	51.4	68	34	60.8	42.1	.95	45.0	68	26	55.0	35.0	1.15
1879-80	50.5	65	35	59.7	41.3	3.95	42.8	65	26	49.9	35.8	7.26
1880-81	48.9	76	27	59.8	38.1	.08	47.7	61	32	52.1	43.3	11.36
1881-82	49.1	68	31	59.3	39.0	1.59	44.3	58	28	51.1	37.6	4.31
1882-83	46.9	63	31	55.0	38.8	4.02	45.6	62	32	54.3	37.0	3.55
1883-84	47.2	66	29	56.5	38.0	.73	41.1	58	25	49.8	32.4	.63
1884-85	51.7	69	38	60.4	43.0	.00	47.8	62	28	55.9	39.7	10.32
1885-86	52.3	67	38	58.0	46.6	9.37	48.4	65	32	54.2	42.6	4.21
1886-87	47.5	64	32	57.1	37.9	.22	47.5	60	32	53.4	41.6	2.96
1887-88	50.8	74	28	60.8	40.8	1.55	45.1	64	31	52.5	37.8	3.71
1888-89	50.8	70	34	57.9	43.7	3.12	47.4	59	35	52.5	42.3	5.18
1889-90	52.0	70	36	59.8	44.2	3.27	44.8	56	32	49.6	40.0	10.91
1890-91	51.6	72	34	63.0	40.3	.00	41.0	56	30	47.5	34.5	4.13
1891-92	52.3	71	32	63.2	41.4	.60	43.3	62	27	50.8	35.8	4.96
1892-93	55.9	82	34	66.1	45.7	5.30	49.7	62	31	56.7	42.7	7.56
1893-94	54.5	74	36	63.0	46.0	4.03	51.7	79	31	58.9	44.5	1.86
1894-95	56.2	79.5	37	67.3	45.1	1.34	49.9	61	37	55.3	44.5	9.37
1895-96	55.3	90	36	65.3	45.3	1.72	47.6	64	32	55.5	39.7	1.47
Averages	51.4	-----	-----	60.7	42.1	2.29	46.2	-----	-----	53.2	39.2	5.09

Years.	January.						February.					
	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall
1876-77	49.7	65	30	57.5	41.9	6.80	51.9	68	36	61.5	42.3	1.31
1877-78	48.1	60	27	54.6	41.6	15.31	48.7	58	38	55.1	42.3	13.82
1878-79	43.2	62	29	51.9	34.5	5.10	50.9	67	34	59.0	42.8	5.77
1879-80	42.0	60	27	50.2	33.8	3.64	46.0	62	29	53.8	38.2	2.19
1880-81	49.4	63	32	54.7	43.4	12.72	52.8	64	36	58.2	47.5	3.15
1881-82	43.0	59	28	50.6	35.4	3.22	43.2	57	30	50.8	35.6	3.65
1882-83	39.7	57	24	47.1	32.3	.92	43.6	68	26	52.1	35.1	1.00
1883-84	43.2	58	30	54.0	32.4	3.67	51.8	70	31	62.3	41.4	5.22
1884-85	43.4	56	34	49.2	37.7	1.77	50.6	64	33	57.8	43.4	.61
1885-86	44.7	58	29	49.6	39.8	7.86	51.1	65	30	59.1	43.1	.25
1886-87	45.1	66	30	53.0	37.2	1.70	41.1	60	30	48.0	34.2	10.62
1887-88	41.5	57	23	46.5	36.5	4.15	48.9	73	34	56.6	41.3	1.28
1888-89	41.6	56	30	48.9	34.3	1.02	46.4	66	27	55.3	37.5	.76
1889-90	39.4	53	26	44.8	34.0	9.40	43.8	60	30	50.8	36.8	6.36
1890-91	45.3	64	28	53.4	37.2	.79	45.5	60	31	52.7	38.3	8.70
1891-92	46.6	61	31	54.7	38.5	3.65	49.4	64	32	57.4	41.4	3.43
1892-93	46.8	63	32	53.7	39.8	4.27	52.4	73	33	60.9	43.8	2.19
1893-94	46.9	60	30	53.9	39.9	8.17	48.2	67	32	56.5	40.0	2.97
1894-95	48.2	62	32	54.2	42.2	9.35	53.4	71.5	35	62.4	44.4	2.92
1895-96	52.5	65	33	59.7	45.4	9.28	54.7	77	34	68.7	40.7	.25
Averages	44.7	-----	-----	51.8	37.6	5.58	48.5	-----	-----	56.7	40.4	3.95

METEOROLOGICAL TABLE—Continued.

Years.	March.						April.					
	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall
1876-77	55.7	74	38	65.3	46.1	0.91	55.1	75	38	65.8	44.4	0.48
1877-78	53.2	68	38	61.1	45.3	4.97	54.5	78	33	64.9	44.1	1.50
1878-79	54.0	75	36	61.4	46.6	9.40	56.6	78	38	65.5	47.8	2.37
1879-80	47.8	66	29	57.2	38.5	2.61	52.0	73	38	58.7	45.3	12.25
1880-81	51.4	71	30	60.6	42.3	1.35	56.5	78	40	65.0	48.0	1.59
1881-82	49.0	78	32	58.0	40.0	3.60	52.0	77	36	63.3	40.7	1.74
1882-83	50.9	69	36	58.4	43.4	5.53	51.8	68	36	61.3	42.3	1.85
1883-84	50.0	72	34	58.2	41.8	7.12	52.6	75	37	61.9	43.3	5.68
1884-85	54.0	74	40	62.4	45.6	0.49	57.5	75	34	66.3	48.8	1.66
1885-86	48.8	70	32	57.8	39.8	1.22	52.3	76	32	59.6	45.1	3.82
1886-87	51.9	73	32	61.2	42.7	0.48	54.6	80	33	64.3	44.9	2.03
1887-88	49.5	70	33	57.6	41.4	4.34	57.8	79	37	69.1	46.5	0.47
1888-89	53.1	74	38	60.8	45.5	8.38	57.2	76	41	66.1	48.3	1.23
1889-90	48.9	64	32	55.4	42.4	5.46	53.9	76	38	62.7	45.1	1.68
1890-91	52.5	73	35	61.7	43.3	1.20	52.9	77	35	63.2	42.6	2.95
1891-92	55.3	79	35	64.6	46.0	2.26	56.0	75	39	66.8	45.2	2.14
1892-93	53.4	77	34	62.0	44.9	4.31	55.0	75	39	65.4	44.6	1.05
1893-94	52.9	76	33	62.6	43.2	1.15	60.5	84	39	72.6	48.4	0.61
1894-95	54.0	75	32	63.4	44.6	2.21	58.3	85	39	69.2	47.4	1.11
1895-96	53.8	78	27	64.3	43.4	3.60	52.7	76	32.5	64.0	41.4	6.28
Averages	51.8			60.4	43.2	3.66	54.9			64.7	45.2	2.74

Years.	May.						June.					
	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall	Mean	Highest	Lowest	Mean Maximum	Mean Minimum	Rainfall
1876-77	57.6	77	40	69.7	47.5	1.26	67.7	102	49	79.7	55.7	.15
1877-78	59.8	82	43	70.6	49.0	.40	64.0	87	47	75.1	52.9	.00
1878-79	56.9	80	38	65.8	48.1	1.55	64.8	88	46	76.8	52.8	.05
1879-80	59.1	89	37	69.2	49.0	1.39	61.8	86	43	73.7	49.9	.00
1880-81	60.1	83	39	72.7	47.6	.11	61.3	82	44	73.3	49.3	.72
1881-82	59.0	85	36	71.3	46.7	.15	60.6	79	46	71.0	50.2	.00
1882-83	57.6	88	30	69.6	45.7	5.25	67.2	98	46	79.1	55.3	.00
1883-84	59.1	78	43	70.1	48.1	.35	60.5	78	47	69.6	51.4	2.72
1884-85	59.7	87	44	69.6	49.9	.05	60.6	78	44	69.1	52.1	.04
1885-86	58.1	80	40	68.1	48.1	.32	63.7	86	46	74.9	52.5	.00
1886-87	57.6	98	34	67.6	47.6	.05	63.1	92	43	74.7	51.5	.00
1887-88	57.2	79	41	65.8	48.6	.94	63.5	84	46	73.9	53.1	.42
1888-89	58.4	81	42	67.4	49.4	2.77	62.9	83	50	72.2	53.6	.17
1889-90	59.9	91	42	69.5	50.3	2.23	62.2	85	41	73.6	50.8	.00
1890-91	57.0	79	42	66.9	47.1	1.39	63.0	97	43	75.5	50.5	.13
1891-92	62.3	93	41	73.2	51.4	2.73	63.3	87	43	74.9	51.7	.09
1892-93	61.5	83	42	73.5	49.6	.49	64.0	90.5	47	77.2	50.8	.00
1893-94	63.1	83	40	74.2	52.0	1.49	64.5	87	47	74.8	54.2	.85
1894-95	62.5	89	44	73.9	51.1	.85	67.5	94	48	80.5	54.6	.00
1895-96	59.1	98	36	72.0	46.2	1.10	65.9	101	42	82.3	49.6	.00
Averages	59.3			70.0	48.7	1.24	63.4			74.8	51.9	.27

METEOROLOGICAL TABLE—Continued.

Years.	Summary.			
	Yearly Mean Temperature.....	Yearly Maximum Temperature.....	Yearly Minimum Temperature.....	Yearly Rainfall...
1876-77	56.9	66.8	47.0	40.48
1877-78	56.0	66.1	45.9	30.38
1878-79	54.5	64.6	44.4	34.12
1879-80	55.9	65.4	46.4	31.08
1880-81	53.7	63.9	43.5	18.99
1881-82	54.0	63.6	44.5	25.53
1882-83	54.3	64.4	44.2	28.91
1883-84	55.5	65.1	45.9	16.77
1884-85	55.5	63.8	47.2	27.74
1885-86	54.7	64.1	45.3	18.95
1886-87	54.9	64.2	45.6	17.08
1887-88	56.1	65.0	47.2	23.74
1888-89	54.4	63.0	45.8	44.71
1889-90	54.6	64.6	44.6	19.74
1890-91	56.7	66.9	46.4	21.13
1891-92	58.0	68.1	47.9	26.75
1892-93	57.9	68.0	47.9	21.49
1893-94	59.9	70.1	49.8	30.35
1894-95	58.7	69.9	47.6	24.92
1895-96				
Averages	55.9	65.6	46.2	26.46

BIENNIAL REPORT OF THE TRUSTEES

OF THE

STATE INSANE ASYLUM AT AGNEWS,

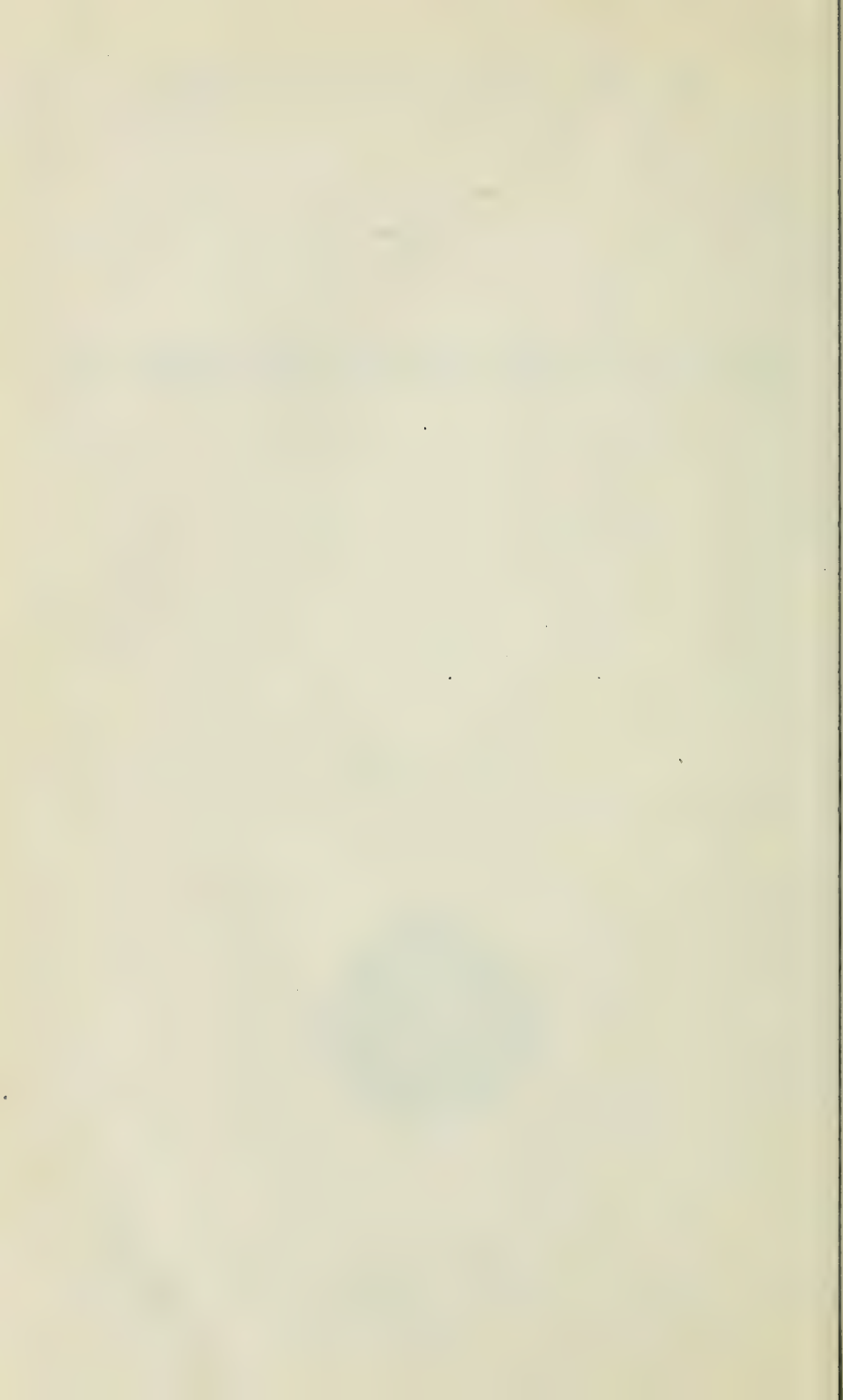
SANTA CLARA COUNTY, CALIFORNIA.

1895-1896.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.
1896.



OFFICERS OF THE ASYLUM.

BOARD OF TRUSTEES.

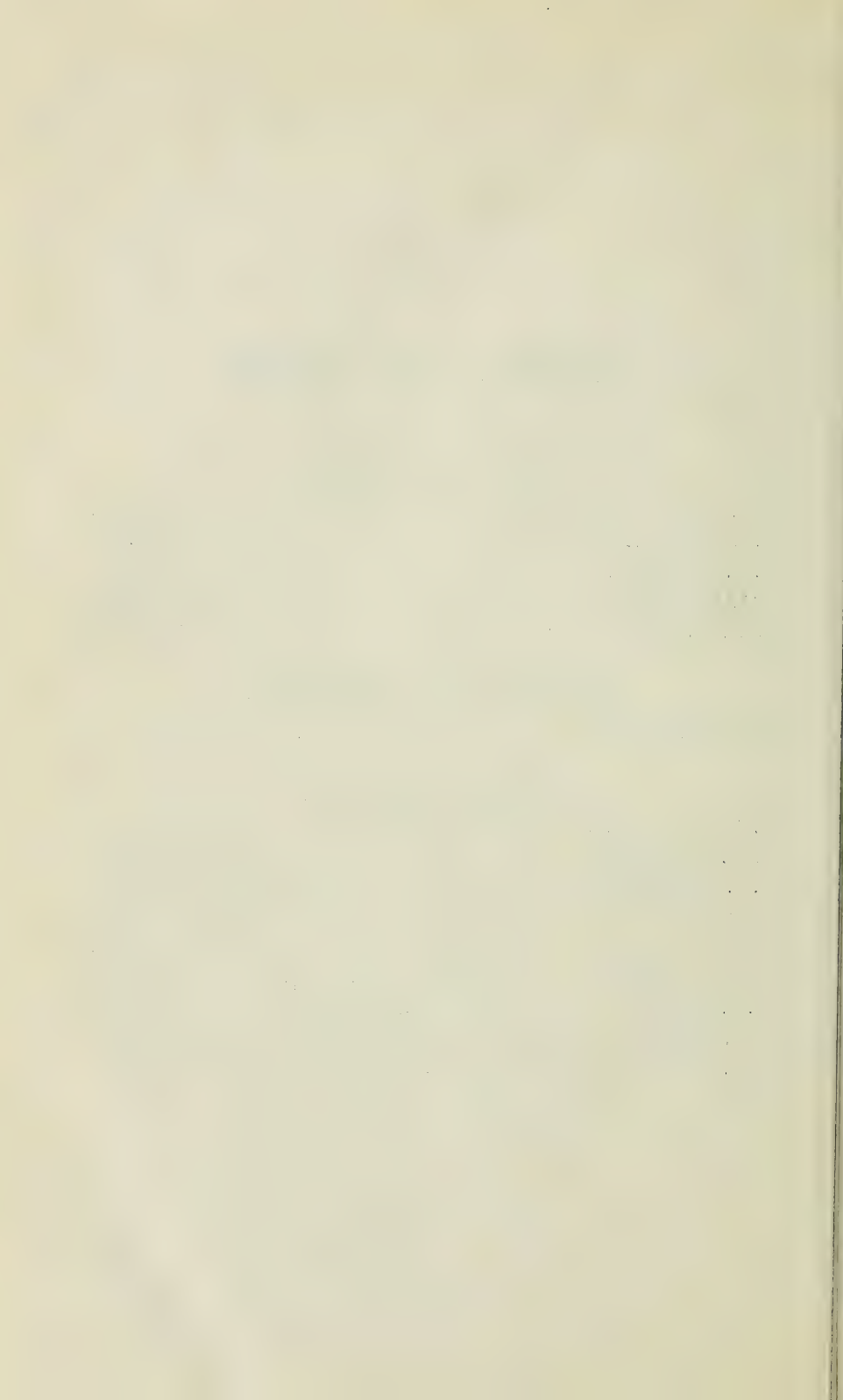
J. R. CURNOW, <i>Chairman</i>	San José.
O. A. HALE	San José.
F. H. GOULD	Stockton.
ISAAC UPHAM	San Francisco.
ED. WHITE	Watsonville.

SECRETARY AND TREASURER.

T. S. MONTGOMERY	San José.
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RESIDENT OFFICERS.

F. W. HATCH, M.D.	Medical Director.
W. F. PRATT, M.D.	First Assistant Physician.
L. E. STOCKING, M.D.	Second Assistant Physician.
T. TOURTILLOTT	Secretary to Medical Director.
F. C. YOUNG	Steward.
H. A. BRADEN	Supervisor.
M. E. ROYSE	Matron.
E. R. BAILEY	Steward's Clerk.
E. A. HAZEN	Apothecary.



TRUSTEES' REPORT.

SAN JOSÉ, CAL., October 28, 1896.

To his Excellency JAMES H. BUDD, Governor of California:

DEAR SIR: The Trustees of the State Insane Asylum, at Agnews, most respectfully submit to you their biennial report, covering the two fiscal years ending June 30, 1896. The report will show the general progress of the Institution: medical, hygienic, financial, etc.

Since the last report of our predecessors there have been several needed improvements made for the promotion of comfort, convenience, and economy. Under this head may be named the completion of the artesian well, which supplies over 600,000 gallons of water per day, giving ample supply for all domestic purposes, irrigation, sprinkling of lawns, etc. The completion of this will cost about \$4,000.

Next may be mentioned the construction of a bone-crusher. This was erected at the small expense of \$300, and by its saving in lard, soap-fat, etc., we are enabled to save \$400 a year to the Institution.

We have built a bath-house, with a large tank 53 feet long, 21 feet wide, and an average of 6 feet deep, of brick and concrete, the whole fitted up with all modern improvements. The good that will be accomplished with this in the way of cleanliness and the promotion of physical and mental vigor among the patients can hardly be overestimated. This cost the State scarcely \$2,400.

Another improvement which we think will meet with your approval is the dividing of the immense attics of the large buildings into various compartments, the better to control fire should the Institution be so unfortunate as to ever have one. These partitions or bulkheads are made as near as can be of incombustible material; that is, two-inch red-wood covered with a thick coating of asbestos.

Besides these improvements referred to, there have been several of a minor nature, all of which were needed.

The Asylum farm has been brought to as high a state of cultivation as could be under the circumstances, with a view to yielding as much produce as possible, such as hay, grain, and vegetables for the use of the Institution.

The buildings are all in a good condition, having been recently painted inside and out.

During the last two or three months the Board has had a list made of all properties and estates indebted to this Asylum, together with the moneys due from said estates, and sent to the Attorney-General for collection. We hope by this means to get quite a sum of money.

FINANCE.

By referring to the report of the Secretary and Treasurer for the past two years, the following account of the receipts, expenditures, money, etc., will be found:

FOR YEAR ENDING JUNE 30, 1895.

Support:		
Asylum	\$130,119 65	
Administration	2,090 28	
		\$132,209 93
Appropriation for the forty-fifth and forty-sixth fiscal years:		
Support or maintenance of Asylum		\$270,000 00

FOR YEAR ENDING JUNE 30, 1896.

Support:		
Asylum	\$114,959 21	
Administration	2,115 92	
		\$117,075 13
Appropriation for the forty-seventh and forty-eighth fiscal years:		
Support or maintenance of Asylum		\$262,000 00

CONTINGENT FUND.

Receipts.

Cash on hand June 30, 1894	\$21,407 24	
Cash in hands of Medical Director June 30, 1894	550 00	
Board of pay-patients	16,725 00	
Sale of live stock	508 65	
Miscellaneous sources	1,038 29	
		\$40,229 29

Disbursements.

Expense of Asylum	\$3,530 26	
Expense of administration	663 18	
Buildings	2,564 84	
Improvement of grounds	1,805 50	
Artesian well	3,954 71	
Machinery	114 43	
Swimming-tank	1,947 80	
Lighting	166 70	
Cash in hands of Medical Director June 30, 1896	550 00	
Cash in hands of Secretary-Treasurer June 30, 1896	24,931 87	
		\$40,229 29

Add to this the Medical Director's report for the same time, which shows us, for the year ending June 30, 1895, that the cost per capita per day of maintaining the patients at the Institution was only $38\frac{9}{10}$ cents for the first year, and for the second year, ending June 30, 1896, only $35\frac{9}{10}$ cents, or a general average for the two years of $37\frac{4}{10}$ cents, and we shall see that the affairs of the Institution have been administered in an economical manner.

In asking your Excellency and the Legislature for an appropriation

for the next two fiscal years, estimating the number of patients for the first year at 1,000, and the second year at 1,050, we have decided that \$269,370 is the least we can ask for. While it is true that during the last fiscal year, under very favorable circumstances, to wit: low prices for supplies, small number of admissions, and other conditions, we came down to $35\frac{9}{10}$ cents per patient per day, we can hardly be expected to maintain this low rate per capita during the next two years. In asking for this amount we ask what we think is the very least for which the affairs of the Asylum can possibly be carried out with any degree of charity or humanity.

The Trustees here desire to state that the officers, from Medical Director down, have fulfilled their duties in every way satisfactory to them, and with credit to the Asylum.

J. R. CURNOW,
Chairman.

F. H. GOULD.

O. A. HALE.

EDWARD WHITE.

ISAAC UPHAM.

REPORT OF SECRETARY AND TREASURER.

To the Honorable Board of Trustees of the State Insane Asylum at Agnews:

GENTLEMEN: Herewith find statement of expenditures for the two fiscal years ending June 30, 1896. As heretofore, the same appears in two statements, as they are made from the appropriations for the forty-fifth and forty-sixth fiscal years, and the forty-sixth and forty-seventh fiscal years, respectively.

For expenditure of appropriations for the forty-fifth fiscal year, see last biennial report.

EXPENDITURE OF APPROPRIATION FOR FORTY-SIXTH FISCAL YEAR,
BEGINNING JULY 1, 1894, AND ENDING JUNE 30, 1895.

Support:

Asylum	\$130,119 65	
Administration	2,090 28	
		<u>\$132,209 93</u>

Appropriation for forty-fifth and forty-sixth fiscal years:

Support or maintenance of Asylum.....	\$270,000 00
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EXPENDITURE OF APPROPRIATION FOR FORTY-SEVENTH FISCAL YEAR,
BEGINNING JULY 1, 1895, AND ENDING JUNE 30, 1896.

Support:

Asylum	\$114,959 21	
Administration	2,115 92	
		<u>\$117,075 13</u>

Appropriation for forty-seventh and forty-eighth fiscal years:

Support or maintenance of Asylum.....	\$262,000 00
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CONTINGENT FUND.

RECEIPTS.

Cash on hand June 30, 1894.....	\$21,407 24	
Cash in hands of Medical Director June 30, 1894.....	550 00	
Board of pay-patients.....	16,725 00	
Sale of live stock.....	508 65	
Miscellaneous sources.....	1,038 40	
		<u>\$40,229 29</u>

DISBURSEMENTS.

Expense of Asylum.....	\$3,530 26	
Expense of administration.....	663 18	
Buildings.....	2,564 84	
Improvement of grounds.....	1,805 50	
Artesian well.....	3,954 71	
Machinery.....	114 43	
Swimming-tank.....	1,947 80	
Lighting.....	166 70	
Cash in hands of Medical Director June 30, 1896.....	550 00	
Cash in hands of Secretary-Treasurer June 30, 1896.....	24,931 87	
		<u>\$40,229 29</u>

T. S. MONTGOMERY,
Secretary-Treasurer.

October 1, 1896.

MEDICAL DIRECTOR'S REPORT.

Year Ending June 30, 1895.

To the Honorable Board of Trustees, State Insane Asylum at Agnews:

GENTLEMEN: Herewith I beg to submit my annual report for the year ending June 30, 1895. I will defer any extended remarks until my usual biennial report.

For the past year the per capita cost of maintaining the patients has been $38\frac{9}{10}$ cents.

NUMBER OF PATIENTS FROM JUNE 30, 1894, TO JUNE 30, 1895.

	Males.	Females.	Total.
Number of patients June 30, 1894	551	335	886
Number admitted during the year	118	84	202
Number returned escapes	1	1	2
Whole number under care and treatment.....	670	420	1,090
Number discharged recovered.....	26	31	57
Number discharged improved.....	11	13	24
Number discharged much improved	2	1	3
Number discharged unimproved	3	4	7
Number discharged not insane.....	4	0	4
Number died	62	26	88
Number eloped	1	1	2
Discharged, died, and eloped	109	76	185
Number remaining June 30, 1895	561	344	905

Year Ending June 30, 1896.

GENTLEMEN: I beg to submit for your consideration the report of the operations of this Institution for the fiscal year ending June 30, 1896.

For the fiscal year mentioned the daily per capita cost of maintaining the patients has been $35\frac{9}{10}$ cents.

NUMBER OF PATIENTS FROM JUNE 30, 1895, TO JUNE 30, 1896.

	Males.	Females.	Total.
Number of patients June 30, 1895.....	561	344	905
Number admitted during the year.....	103	82	185
Whole number under care and treatment.....	664	426	1,090
Number discharged recovered.....	36	18	54
Number discharged improved.....	10	12	22
Number discharged unimproved.....	4	0	4
Number discharged not insane.....	1	1	2
Number died.....	45	29	74
Number eloped.....	1	0	1
Number discharged, died, and eloped.....	97	60	157
Number remaining June 30, 1896.....	567	366	933

From the above summary it will be seen that we commenced the year July 1, 1895, with 905 patients, and that during the period named we received 185 patients, and the whole number under care and treatment was 1,090.

There were 82 discharges, 1 eloped, and 74 died, leaving us with 933 patients at the end of the year.

During the period covered by this biennial report our inmates have been free from epidemic disease or any sickness due to local conditions. The main causes of death have been those arising from chronic and wasting diseases, with the organic brain troubles that are incident to the form of disease which we encounter. The satisfactory working of our new sewer has removed a possible source of disease, and placed our building in a better sanitary condition.

It will be noticed that our list of recoveries and discharges is smaller than has been usual with us, and this fact may be almost entirely attributed to the class of patients which we have received. The majority of the cases have been either of long standing or suffering from a form of disease which precludes recovery. With a less number of deaths and discharges, a natural increase in our number to be cared for has necessarily followed, and at this writing the Institution contains more patients than it can properly accommodate, a condition of things which makes it very difficult even to attempt to classify the patients as they should be.

IMPROVEMENTS.

While striving to keep in good repair the buildings already in our charge, it has been the wise policy of your honorable Board to make such improvements as would benefit those under our charge, and contribute to the safety of our present structure.

First among the improvements is the completion of the new artesian

well. Located near the engine-room, it is 780 odd feet deep, 12 inches in diameter, and supplies us with over 600,000 gallons of excellent water daily. From it we receive an abundance of water for domestic purposes and for the irrigation of the lawns and grounds. It cost us about \$4,000, and is a very valuable and necessary addition.

The bath-house, a neatly built frame structure, inclosing a swimming-tank 53 feet long, 21 feet wide, 6 feet deep, of brick and concrete, is fitted up with an additional rain-bath apparatus. That this improvement will add much both to the pleasure and cleanliness of the inmates is beyond a doubt. The whole structure cost about \$2,400, and the money was wisely expended.

Another improvement worthy of note is the construction of heavy redwood bulkheads in the attics. The large attics in an insane asylum, as is well known, are among the most dangerous points in case of fire, and these bulkheads were constructed with the idea of confining a fire taking place in the attics to a small space, where it can be more easily fought. They are of two-inch redwood, well made, and covered with a heavy coating of asbestos whitewash.

The construction of a bone-crusher and its continual use have been the means of saving quite a sum to the State.

During the summer months I have had all the woodwork on the outside of the buildings thoroughly painted.

APPROPRIATIONS NEEDED.

For the support of the Asylum for the ensuing two fiscal years, the sum of \$269,370 will be required. This amount is based upon an estimated population of 1,000 patients for the first year, and 1,050 for the second, at a daily per capita of 36 cents.

This amount is as small a sum as can be safely granted for the care of the Institution. Our daily per capita of 36 cents will be difficult to maintain in the ensuing two years. We have been working under favorable conditions, remarkably low prices for supplies, and a comparatively small number of admissions, and our last annual per capita of $35\frac{9}{10}$ cents cannot be counted upon as a safe guide for the future. The distribution of asylums, and especially the completion of the institution at Ukiah, has relieved the three older asylums, Napa, Stockton, and Agnews, to a considerable extent in the past two years; but, now that Ukiah is filled very nearly to its capacity, we can but expect the tide of commitments to turn in our direction. Located as we are in the immediate neighborhood of San Francisco and in the midst of populous counties, we cannot fail to receive a larger increase in our numbers than in the past two years.

If it were safe to estimate on a daily per capita of less than 36 cents,

it is questionable whether it would be advisable to do so. With the advancing age of the buildings repairs are constantly necessary, and no small part of the appropriation is used in keeping the buildings and halls in good order. With the destructive tendencies of patients such as are met with in the Asylums, frequent renewals of bedding and furniture are required, and, even throwing aside the question of repairs and re-furnishing, it is doubtful whether it is expedient, from a humane point of view, to try to care for these dependent and sick people at a daily cost of less than 36 cents. In fact, it is my individual judgment that we could exceed that cost with benefit to the inmates, if not to the taxpayers.

To care for the harmless demented, or the case of chronic mental unsoundness, is cheaper than to treat cases of insanity of an acute character. The care of the one is mostly custodial, and a question of providing a comfortable home, where they can have such medical attention as their condition demands, can be reasonably well fed, and provided with what very often becomes to them simply an abiding place. This class of patients can be cared for without any detriment to them at the lowest possible rate to the taxpayer, while the other—the acute cases—in reality need not only custodial care, but they need constant medical attention, constant nursing, and should have such a diet and such surroundings as their condition demands, regardless of the daily per capita cost.

This period of insanity is the time to make the fight; on the one hand to prevent a retrogression into the more chronic forms of mental disease, or on the other hand to promote a return to health and society. Hence, I believe that it is unwise to reduce your per capita or an appropriation to a figure that deprives one of any possible remedial measures. Acute and curable cases of mental disease need hospital care, frequent observation by a physician, and constant and intelligent nursing. In a word, each patient should be individualized, and a careful study made of his or her particular case, and if possible the patient should be so placed that his surroundings and associations should tend to promote recovery. To do this fully in our crowded State asylums is impossible, but to even attempt it requires an outlay for nurses, food, and special care that goes far beyond an allowance of 36 cents a day.

In my opinion it would be a benefit to all of our State asylums to have constructed cottages for the treatment of the acute and convalescent cases. That such an addition would add something to the cost of maintenance is undoubted, but the benefits to be derived in the increased comfort to patients, the improved surroundings, and the better facilities for treatment, will more than compensate for the added expense. Our State asylums are at present steadily reducing the cost of maintenance without lowering the standard of care or depriving our patients of the

necessities of life, but we are approaching a point beyond which it would be an unwise economy to go.

ACKNOWLEDGMENTS.

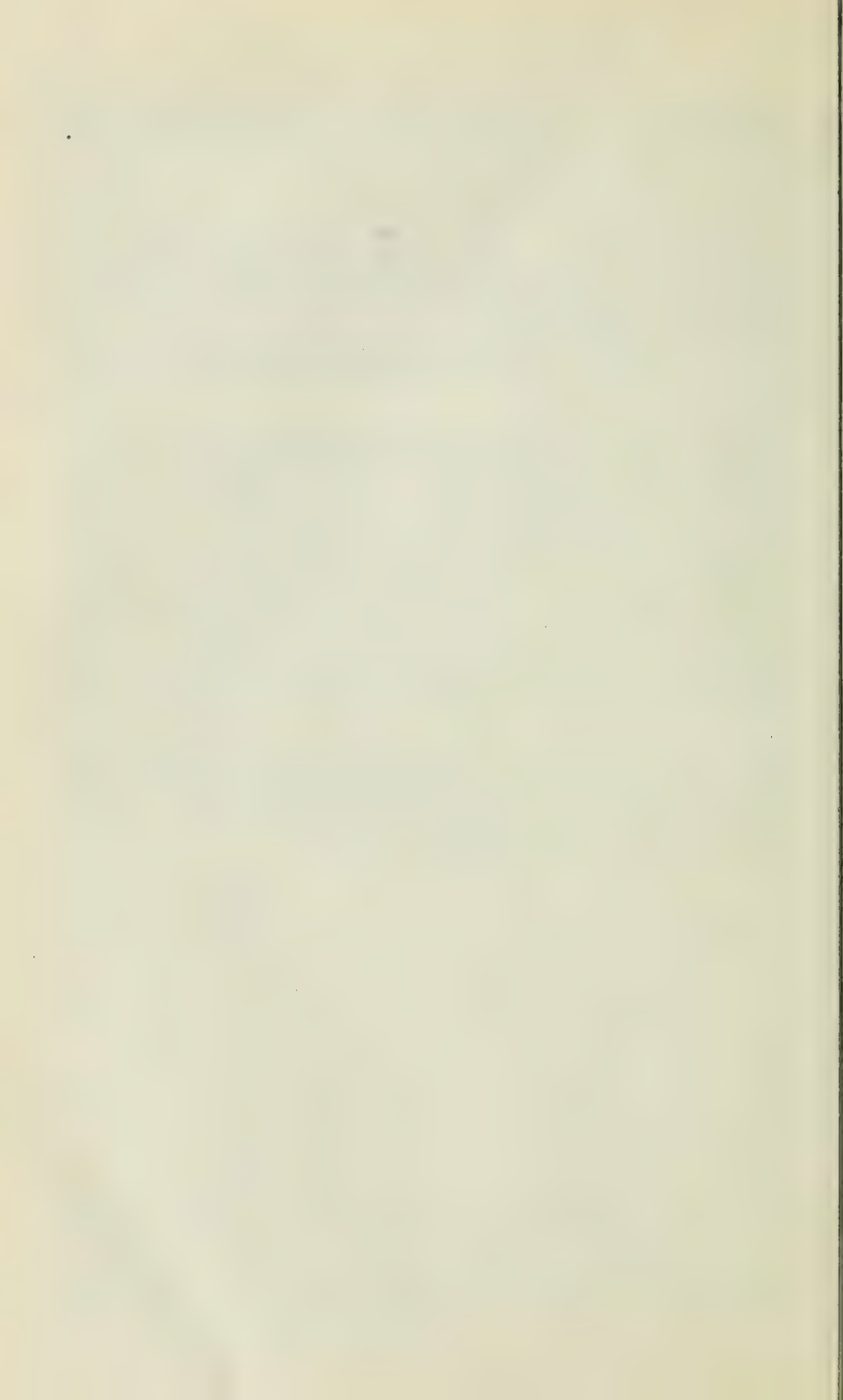
I tender hearty thanks to the medical corps for their close attention to the health of our community, and to the employés generally for their faithfulness to the interests of those immediately under their charge and to the welfare of the Institution.

To you, gentlemen of the Board, I can but express my gratitude for your cordial support and your willingness to counsel with me in the management of the Asylum.

To the Rev. C. S. Medhurst, Father Raggio, and others, I wish to extend my thanks for the kindly interest they have taken in the spiritual welfare of the patients; and to the following-named publishers and friends for reading matter gratuitously supplied: Dr. I. W. Snowden, papers and magazines; San José Daily Herald, A'Uniae Portugueza, La Italia, Staats Zeitung, Nord California Herold, Gilroy Gazette, Oakland Daily Tribune, San Francisco Daily Bulletin, Deutsch Zeitung (San Diego, Cal.), Visalia Delta, Le Progres, Weekly Petaluma Argus, Watsonville Transcript, Vallejo Chronicle, Napa Register, Telegraph (Boston, Mass.), Lake County Avalanche, Breeder and Sportsman, Los Angeles Evening Express, Virginia City (Nev.) Chronicle, Le Franco-Californien, Colusa Sun, Santa Clara Journal, Los Angeles Daily Times; William Green, Lick Mills, magazines; Mrs. W. B. Beal, Oakland, books; Mrs. A. J. Barkley, San Francisco, books; Mrs. Boyd, San Francisco, magazines; Mrs. Smith, San Francisco, magazines.

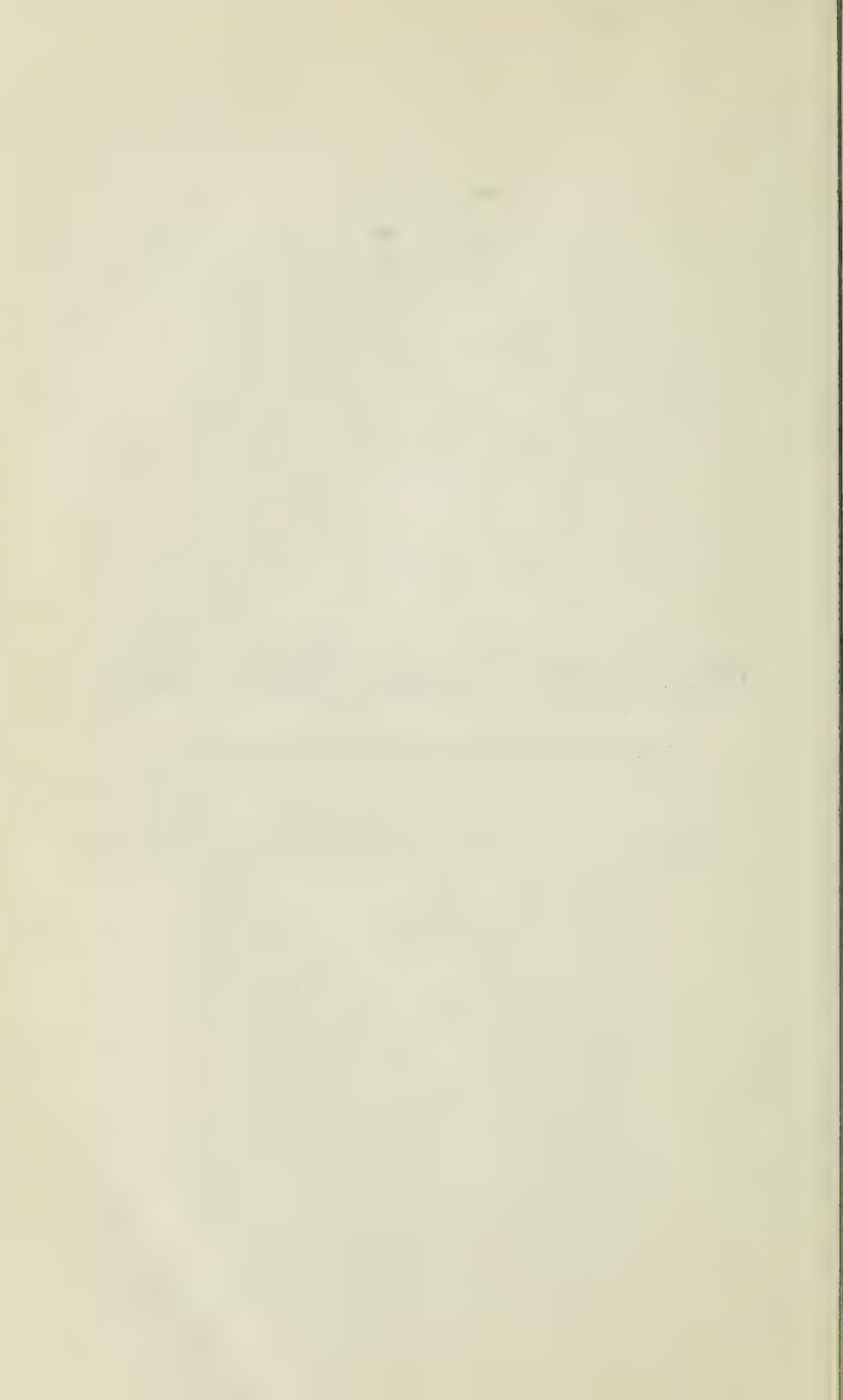
Very respectfully,

F. W. HATCH,
Medical Director.



STATISTICAL REPORT

FOR THE YEAR ENDING JUNE 30, 1895.



REPORT OF MEDICAL DIRECTOR.

NUMBER OF ADMISSIONS, RECOVERIES, DEATHS, ETC.

The following table shows the number of admissions, recoveries, discharges, deaths, elopements, number resident at the close of each year, whole number treated each year, and the aggregates; also the ratio of recoveries and deaths each year and for the whole time, from October 30, 1888, to July 1, 1896:

	October 30, 1888, to July 1, 1889	July 1, 1889, to July 1, 1890	July 1, 1890, to July 1, 1891	July 1, 1891, to July 1, 1892	July 1, 1892, to July 1, 1893	July 1, 1893, to July 1, 1894	July 1, 1894, to July 1, 1895	July 1, 1895, to July 1, 1896
Admissions.....	389	289	357	381	356	244	202	185
Returned escapes.....	0	0	8	5	4	2	2	0
Recoveries.....	3	44	81	96	97	62	57	54
Discharges uncured.....	3	28	63	47	62	107	38	28
Deaths.....	17	54	85	89	95	91	88	74
Escapes.....	1	1	12	4	1	2	2	1
Number resident at close of each year.....	365	527	651	801	902	886	905	933
Increase.....	365	183	124	150	101	0	19	28
Whole number treated.....	389	654	892	1,037	1,161	1,148	1,090	1,090
Per cent of recoveries to admissions.....	.77	15.23	22.19	24.82	27.25	25.40	28.21	29.18
Per cent of deaths to number treated.....	4.37	8.26	9.53	8.58	8.18	7.95	8.07	6.79

ANNUAL SUMMARY.

Showing the Number of Patients in the Asylum June 30, 1894; the Number Admitted, Number under Care and Treatment, Number Discharged, Died, and Eloped during the year; and the Number Remaining in the Asylum June 30, 1895.

From June 30, 1894, to June 30, 1895.	Males.	Females.	Total.
Number of patients June 30, 1894.....	551	335	886
Number admitted during the year.....	118	84	202
Number returned escapes.....	1	1	2
Whole number under care and treatment.....	670	420	1,090
Number discharged recovered.....	26	31	57
Number discharged improved.....	11	13	24
Number discharged much improved.....	2	1	3
Number discharged unimproved.....	3	4	7
Number discharged not insane.....	4	0	4
Number died.....	62	26	88
Number eloped.....	1	1	2
Discharged, died, and eloped.....	109	76	185
Number remaining June 30, 1895.....	561	344	905

TABLE I.

Counties from which 202 Patients were Admitted from July 1, 1894, to July 1, 1895.

Counties.	Males.	Females.	Total.
Alameda	14	16	30
Fresno	1	0	1
Monterey	9	3	12
Marin	1	0	1
Madera	1	0	1
Santa Clara	32	14	46
San Francisco	36	39	75
Santa Cruz	9	3	12
San Benito	2	0	2
San Mateo	5	3	8
Sacramento	1	1	2
San Luis Obispo	7	5	12
Totals	118	84	202

TABLE II.

Nativity of 202 Patients admitted from July 1, 1894, to July 1, 1895.

Nativity.	Males.	Females.	Total.
<i>United States.</i>			
Arkansas	0	1	1
Colorado	1	0	1
California	24	23	47
Illinois	1	5	6
Indiana	1	0	1
Kansas	1	0	1
Kentucky	0	1	1
Minnesota	1	0	1
Michigan	1	1	2
Massachusetts	2	3	5
New York	6	10	16
New Jersey	1	0	1
Nevada	1	0	1
North Carolina	0	1	1
Ohio	2	3	5
Oregon	1	0	1
Pennsylvania	3	0	3
Rhode Island	1	0	1
Texas	1	0	1
United States	1	2	3
Wisconsin	2	0	2
Totals	51	50	101
<i>Foreign Countries.</i>			
Azores	3	1	4
Cape Breton	2	0	2
Canada	3	1	4
China	2	2	4
Denmark	2	1	3
England	4	7	11
France	4	0	4
Finland	0	1	1
Germany	16	3	19
Ireland	12	13	25

TABLE II—Continued.

Nativity.	Males.	Females.	Total.
<i>Foreign Countries—Continued.</i>			
Italy	2	1	3
Mexico	1	0	1
Nova Scotia	3	1	4
Norway	1	0	1
New Brunswick	0	1	1
Portugal	3	0	3
Sweden	3	1	4
Scotland	2	0	2
Spain	1	0	1
Switzerland	2	1	3
Totals	66	34	100
Unknown	1	0	1
<i>Recapitulation.</i>			
United States	51	50	101
Foreign countries	66	34	100
Unknown	1	0	1
Grand totals	118	84	202

TABLE III.

Ages of 202 Patients at time of admission into the Asylum, from July 1, 1894, to July 1, 1895.

Ages.	Males.	Females.	Total.
Between 10 and 20 years	5	7	12
Between 20 and 30 years	32	23	55
Between 30 and 40 years	31	26	57
Between 40 and 50 years	28	8	36
Between 50 and 60 years	11	10	21
Between 60 and 70 years	7	6	13
Between 70 and 80 years	3	3	6
Unknown	1	1	2
Totals	118	84	202

TABLE IV.

Civil Condition of 202 Patients admitted from July 1, 1894, to July 1, 1895.

Civil Condition.	Males.	Females.	Total.
Divorced	0	1	1
Married	41	35	76
Single	72	32	104
Unknown	2	1	3
Widows		15	15
Widowers	3		3
Totals	118	84	202

TABLE V.

Supposed Causes of Insanity of 202 Patients, admitted from July 1, 1894, to July 1, 1895.

Supposed Causes.	Males.	Females.	Total.
Alcoholism	3	1	4
Apoplexy	1	0	1
Abuses in venery	1	0	1
Brain fever	1	0	1
Brain degeneration	1	0	1
Brooding over imaginary trouble	1	0	1
Central disease of brain	1	0	1
Change in life	0	1	1
Childbirth	0	1	1
Death of sister	1	1	2
Depression of central nervous system	0	1	1
Epilepsy	3	1	4
Fright	0	1	1
Family trouble	2	5	7
General debility	0	2	2
Head injury	3	0	3
Hereditary	9	2	11
Ill health	0	1	1
Injury from a fall	1	0	1
Improper food and care	2	2	4
Jealousy	0	1	1
La grippe	3	0	3
Loss of father	0	1	1
Loss of husband	0	1	1
Masturbation	11	1	12
Morphine	1	0	1
Mental trouble	1	0	1
Narcotics	2	0	2
Neurasthenia	1	0	1
Old age	1	2	3
Ovarian trouble	0	1	1
Paresis	1	0	1
Paralysis	0	2	2
Puerperal	0	1	1
Religion	1	2	3
Solitude	0	1	1
Sunstroke	1	0	1
Spine injury	1	0	1
Syphilis	1	0	1
Spiritualism	0	1	1
Suppressed menstruation	0	1	1
Typhoid fever	1	0	1
Tuberculosis	1	0	1
Uterine trouble	0	1	1
Unknown	61	48	109
Total	118	84	202

TABLE VI.

Classes of Insanity as given in the commitments of 202 Patients, admitted from July 1, 1894, to July 1, 1895.

Class.	Males.	Females.	Total.
Dementia, acute	1	0	1
Dementia, chronic	6	5	11
Dementia, paretic	1	1	2
Dementia, recurrent	0	1	1
Dementia, senile	1	2	3
Epilepsy	2	1	3
Emotional insanity	0	1	1
Mania, acute	21	13	34
Mania, chronic	5	2	7
Mania, recurrent	2	2	4
Mania, religious	2	0	2
Monomania	13	4	17
Melancholia, acute	18	10	28
Melancholia, chronic	6	5	11
Melancholia, recurrent	0	1	1
Unknown	40	36	76
Totals	118	84	202

TABLE VII.

Occupation of 202 Patients, received from July 1, 1894, to July 1, 1895.

Occupation.	Males.	Females.	Total.
Acrobat	1	0	1
Advertiser	1	0	1
Agent	1	0	1
Baker	1	0	1
Bookkeeper	2	0	2
Boxmaker	1	0	1
Barber	2	0	2
Beltmaker	1	0	1
Bartender	1	0	1
Blacksmith	1	0	1
Bricklayer	2	0	2
Cooper	1	0	1
Carpenter	5	0	5
Clerk	7	0	7
Cigarmaker	2	0	2
Cook	2	0	2
Confectioner	1	0	1
Chambermaid	0	1	1
Dressmaker	0	2	2
Domestic	0	7	7
Electrician	1	0	1
Engraver	1	0	1
Farmer	11	0	11
Factory-woman	0	1	1
Fireman	1	0	1
Harness-maker	1	0	1
Hostler	2	0	2
Housewife	0	43	43
Hotelkeeper	0	1	1
Lineman	1	0	1
Laborer	29	0	29
Laundryman	1	0	1
Liquor-dealer	2	0	2

TABLE VII—Continued.

Occupation.	Males.	Females.	Total.
Lawyer.....	1	0	1
Lumberman.....	2	0	2
Lodginghouse-keeper.....	0	1	1
Machinist.....	1	0	1
Miner.....	1	0	1
Merchant.....	1	0	1
Music-teacher.....	0	1	1
No occupation.....	0	2	2
Nurse.....	0	2	2
Orchardist.....	1	0	1
Painter.....	3	0	3
Prostitute.....	0	1	1
Plumber.....	2	0	2
Priest.....	1	0	1
Shoemaker.....	2	0	2
Sea captain.....	1	0	1
Student.....	1	0	1
Sheepherder.....	1	0	1
Sailmaker.....	1	0	1
Saddler.....	1	0	1
Sailor.....	1	0	1
Saleswoman.....	0	1	1
Servant.....	0	3	3
Seamstress.....	0	1	1
Tailor.....	1	0	1
Teamster.....	2	0	2
Tanner.....	1	0	1
Unknown.....	8	17	25
Waiter.....	1	0	1
Watchmaker.....	1	0	1
Woodchopper.....	1	0	1
Totals.....	118	84	202

TABLE VIII.

Cause of Death of 88 Patients, from July 1, 1894, to July 1, 1895.

Date, and Cause of Death.	Age.	Males.	Females.
1894—July—Exhaustion from sub-acute mania.....	39	1	.....
General paralysis.....	40	1	.....
Leucocythæmia.....	42	.....	1
Inanition.....	45	.....	1
Gastro-enteritis.....	50	1	.....
Alcoholism and hemorrhage of stomach.....	44	1	.....
Phthisis pulmonalis.....	40	1	.....
August—Apoplexy.....	50	.....	1
Exhaustion from melancholia.....	Unk'wn.	.....	1
Phthisis pulmonalis.....	37	1	.....
Epilepsy.....	38	1	.....
Exhaustion from chronic diarrhœa.....	51	.....	1
Paralysis.....	69	1	.....
Exhaustion.....	64	1	.....
Exhaustion.....	54	1	.....
September—General paralysis.....	44	1	.....
Infirmities of age.....	80	1	.....
Phthisis pulmonalis.....	48	.....	1
Purpura hæmorrhagica.....	48	1	.....
Infirmities of age.....	78	1	.....
October—General paralysis.....	52	1	.....
Exhaustion from chronic mania.....	53	1	.....
Syphilis.....	32	.....	1
Phthisis pulmonalis.....	46	1	.....

TABLE VIII—Continued.

Date, and Cause of Death.	Age.	Males.	Females.
1894—October—Valvular disease of heart.....	54	1	.....
Epilepsy.....	29	1	.....
Exhaustion from melancholia.....	26	1	.....
Consumption.....	27	1	.....
November—General paralysis.....	46	1	.....
Apoplexy.....	47	.....	1
General paralysis.....	46	.....	1
December—Organic disease of heart.....	57	1	.....
Epilepsy.....	55	1	.....
Appendicitis.....	62	.....	1
General paralysis.....	36	1	.....
Suicide by strangulation while at home.....	45	1	.....
Phthisis pulmonalis.....	44	.....	1
Paralysis.....	23	1	.....
Acute bronchitis.....	65	.....	1
Inanition.....	18	1	.....
1895—January—Inanition.....	63	.....	1
Cerebral effusion.....	23	1	.....
General paralysis.....	36	.....	1
Gangrene of the legs.....	65	1	.....
February—Gastro-enteritis.....	61	1	.....
Phthisis pulmonalis.....	31	1	.....
General paralysis.....	37	1	.....
Infirmities of age.....	76	1	.....
Chronic gastritis.....	47	1	.....
Cerebral softening.....	42	1	.....
General paralysis.....	39	1	.....
General paralysis.....	48	1	.....
Paralysis.....	77	1	.....
General paralysis.....	40	1	.....
March—Cancer of breast.....	.....	.....	1
Acute pneumonia.....	37	1	.....
Organic disease of the brain.....	.....	1	.....
Valvular disease of the heart.....	66	.....	1
Bronchitis.....	76	1	.....
Maniacal exhaustion.....	30	1	.....
Apoplexy.....	54	.....	1
April—Organic disease of the brain.....	50	.....	1
General paresis.....	36	.....	1
Infirmities of age.....	65	1	.....
Infirmities of age and paralysis.....	72	1	.....
Infirmities of age and paralysis.....	68	1	.....
Paralysis.....	.....	1	.....
General paralysis.....	52	1	.....
Acute bronchitis.....	50	1	.....
Infirmities of age.....	70	1	.....
Inanition.....	25	.....	1
May—Infirmities of age.....	72	1	.....
Exhaustion of acute mania.....	34	.....	1
Infirmities of age.....	85	1	.....
Maniacal exhaustion.....	34	1	.....
General paralysis.....	34	.....	1
Valvular disease of the heart.....	65	.....	1
Chronic gastro-enteritis.....	40	.....	1
Paralysis.....	44	.....	1
Epilepsy.....	24	1	.....
Maniacal exhaustion.....	37	.....	1
June—Infirmities of age.....	.....	1	.....
Organic disease of the brain.....	41	1	.....
Cerebral effusion.....	53	.....	1
Maniacal exhaustion.....	48	1	.....
Organic disease of the brain.....	50	1	.....
Phthisis pulmonalis.....	28	1	.....
Valvular disease of the heart.....	60	.....	1
Totals.....	.....	60	28

TABLE IX.

Recapitulation of Causes of Death, from July 1, 1894, to July 1, 1895.

Causes of Death.	Males.	Females.	Total.
Alcoholism and hemorrhage of stomach	1	0	1
Apoplexy	0	3	3
Appendicitis	0	1	1
Acute pneumonia	1	0	1
Acute bronchitis	1	1	2
Bronchitis	1	0	1
Cerebral effusion	1	1	2
Chronic gastritis	1	0	1
Cerebral softening	1	0	1
Cancer of the breast	0	1	1
Chronic gastro-enteritis	0	1	1
Exhaustion from sub-acute mania	1	0	1
Exhaustion from melancholia	1	1	2
Epilepsy, with organic disease of the brain	1	0	1
Exhaustion from chronic diarrhoea	0	1	1
Exhaustion	2	0	2
Exhaustion from chronic mania	1	0	1
Epilepsy	3	0	3
Exhaustion from acute mania	0	1	1
General paresis	10	4	14
Gastro-enteritis	2	0	2
Gangrene of the legs	1	0	1
Inanition	1	3	4
Infirmities of age	6	0	6
Infirmities of age and exhaustion	2	0	2
Infirmities of age and paralysis	2	0	2
Leucocythæmia	0	1	1
Maniacal exhaustion	3	1	4
Organic disease of heart	1	0	1
Organic disease of brain	3	1	4
Paralysis	4	1	5
Purpura hæmorrhagica	1	0	1
Phthisis pulmonalis	6	2	8
Syphilis	0	1	1
Suicide by strangulation	1	0	1
Valvular disease of the heart	1	3	4
Totals	60	28	88

TABLE X.

Articles Made in the Sewing-Room from July 1, 1894, to July 1, 1895.

Articles.	Number.	Articles.	Number.
Aprons	261	Napkins	24
Bandages	15	Nightgowns	103
Basques	43	Pillow covers	437
Bedspreads	8	Pillowshams	60
Bibs (canvas)	6	Pillowticks	136
Blankets (canvas)	17	Protection sheets	3
Camisoles	39	Property bags	12
Capes	13	Sheets	204
Chemises	253	Shrouds	87
Coats	6	Skirts	140
Coffinpillows	72	Sunbonnets	63
Drawers	103	Tablecloths	10
Dresses	291	Towels	680
Dress skirts	43	Undervests	27
Mattress-ticks	237	Window curtains	40
Mats	24		

STEWARD'S REPORT.

TABLE FIRST.

Amount of Articles Purchased and Consumed, and other Expenses, for the fiscal year ending June 30, 1895.

Articles.	Value.	Articles.	Value.
Flour	\$4,523 20	Payroll	\$58,991 75
Meat	10,409 85	Carpenters' tools and supplies	105 93
Sugar	2,440 94	Engine-room tools and supplies	657 65
Tea	578 08	Expense of administration	2,090 28
Syrup	263 38	Freight and express	206 46
Potatoes	1,373 62	Farm tools and supplies	466 17
Butter	3,701 60	Telegraphing and telephoning	117 00
Chicory and coffee	1,785 61	Baking powder	382 28
Lard	279 50	Codfish	55 00
Fish	620 92	Canned goods	164 60
Poultry and eggs	1,328 09	Dried fruit	975 79
Beans	272 48	Extracts and spices	128 70
Rice and cracked wheat	728 00	Hams and bacon	854 03
Corn and oatmeal	638 75	Macaroni and vermicelli	146 81
Fruit and vegetables	150 55	Soda crackers	87 61
Salt	95 97	Salmon and mackerel	252 54
Vinegar	32 44	Salt pork	147 90
Small groceries	962 89	Laundry starch	107 73
Soap	681 13	Tallow	148 58
Drugs	1,464 72	Caustic soda and potash	137 20
Liquor and ale	90 45	Hops and malt	76 12
Tobacco	914 55	Lime and cement	38 35
Dry goods	2,801 42	Horseshoeing	209 63
Clothing and hats	1,875 09	Oilcloth	60 21
Shoes	593 64	Rubber sheets	86 94
Blankets	636 52	Stoves	22 90
Furniture and crockery	400 21	Hay and straw	214 50
Hardware and tinware	399 45	Window screens and shades	40 28
Spoons and cutlery	20 25	Iron beds	6 00
Carpeting and matting	74 53	Advertising for supplies	502 00
Grain and feed	1,513 85	Fire hose	238 60
Garden tools and seeds	281 87	Sewer-pipe	21 00
Lumber	752 33	Gravel	4 40
Repairs	2,106 93	Insurance	180 00
Brooms and brushes	252 89	Floss	154 50
Books and stationery	141 07	Restraints	20 25
Gas	1,415 25	Laundry machinery	428 04
Fuel	10,796 91	Iron tank	65 00
Paints, oil, and glass	1,090 69	Shoemakers' supplies	136 59
Bedding	448 83		
Castings, iron, and pipe	149 95		
Miscellaneous	778 43	Total	\$128,596 15

TABLE SECOND.

Showing the Cost of the Different Departments for the fiscal year ending June 30, 1895.

Departments.	Cost.
Kitchen and dining-room	\$29,689 15
Wards	6,228 19
Bakery	4,893 33
Laundry	924 87
Engine-room	10,402 47
Farm, garden, dairy, and stable	3,181 37
Expenses of administration	2,090 28
Repairs	2,106 93
Miscellaneous	4,433 02
Drug-store	1,572 41
Sewing-room	2,133 19
Furnishing	27 86
Administration building	466 24
Steward's office	34 17
Payroll	58,991 75
Gas	1,415 25
Laundry building	5 67
Total	\$128,596 15

TABLE THIRD.

Disbursements for the fiscal year ending June 30, 1895.

For What Purpose.	Cost.
Maintenance	\$128,568 29
Furnishing	27 86
Total	\$128,596 15

TABLE FOURTH.

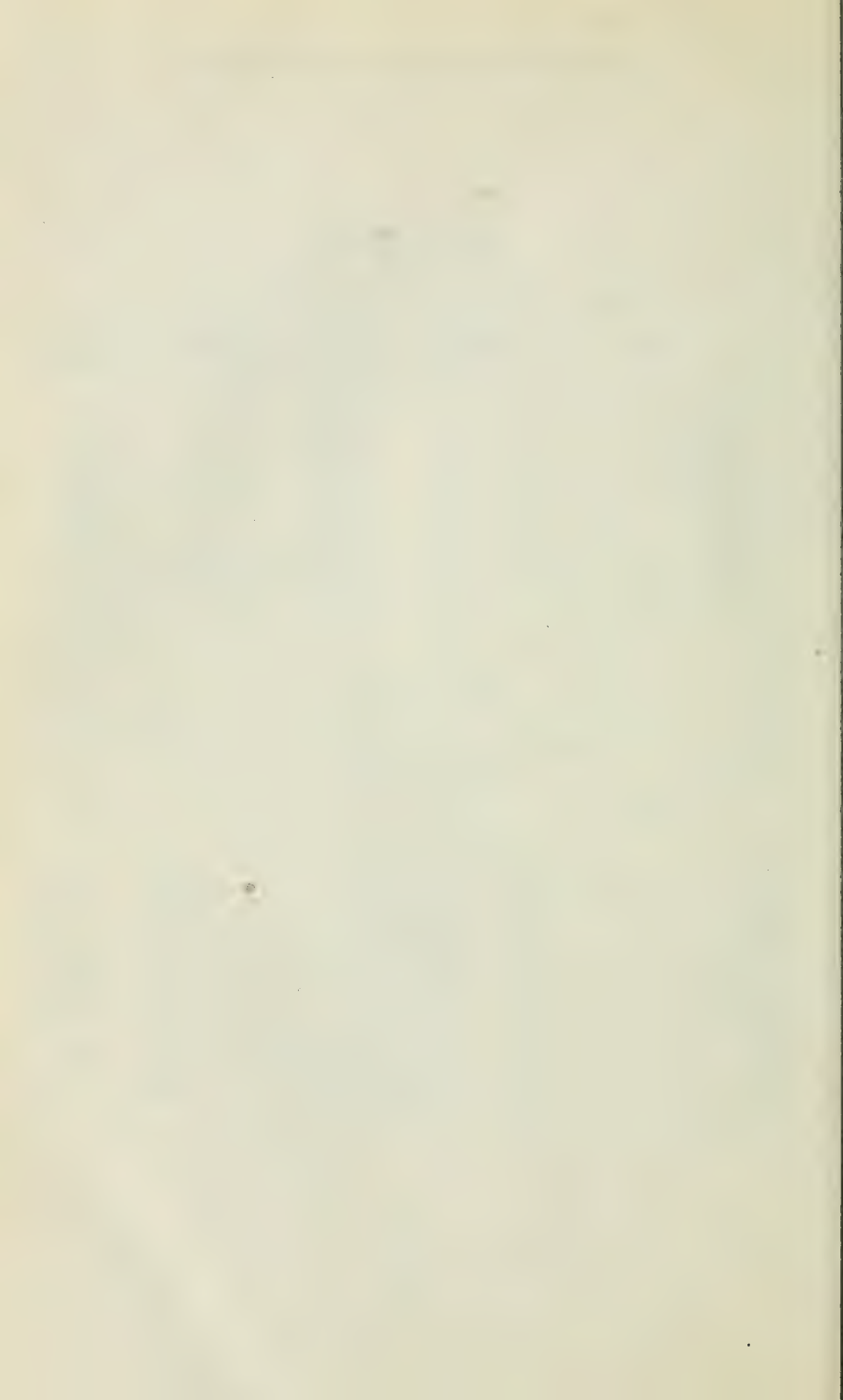
Averages for the fiscal year ending June 30, 1895.

Months.	Average No. of Patients Daily.	Average Daily Expense.	Average Cost per Capita per Day.	Average Cost per Capita per Month.
1894—July	885	\$319 71	\$0 36.1	\$11 20
August	893	334 03	37.3	11 58
September	902	337 76	37.4	11 23
October	904	369 15	40.8	12 65
November	909	382 19	42	12 61
December	905	339 72	37.5	11 63
1895—January	911	366 65	40.2	12 46
February	910	373 20	41	11 48
March	912	332 62	36.4	11 30
April	915	352 17	38.4	11 54
May	914	347 34	38	11 78
June	907	376 51	41.5	12 45
Yearly averages	905	\$352 59	\$0 38.9	\$11 82

TABLE FIFTH.

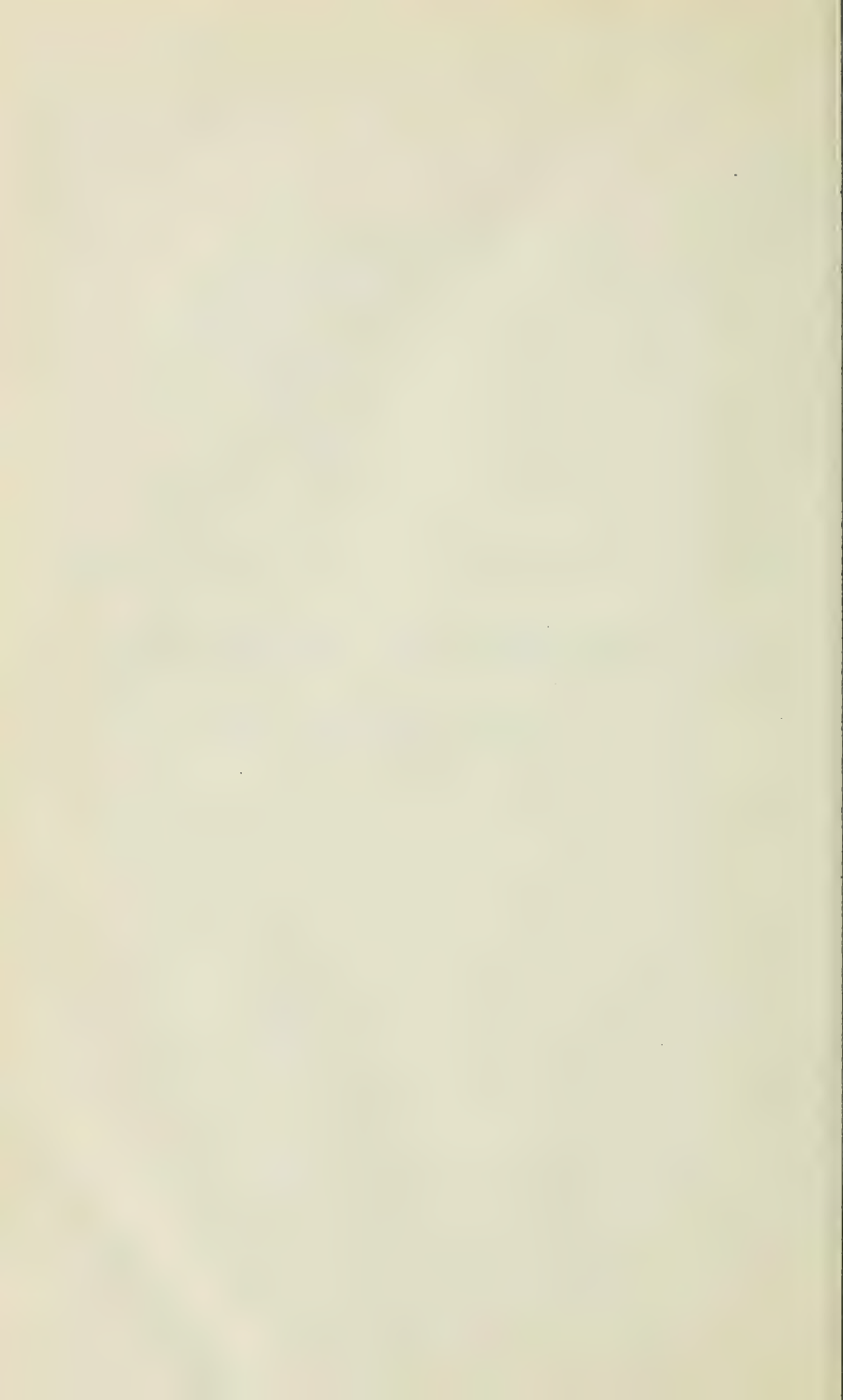
Products of the Farm, Garden, and Dairy for the fiscal year ending June 30, 1895.

Articles.	Amount.	Articles.	Amount.
Artichokes	Doz. 8	Peppers (green)	Lbs. 1,235
Asparagus	Lbs. 47	Peas	Lbs. 641
Beans	Lbs. 6,364	Pears	Lbs. 17,862
Beets	Lbs. 5,836	Radishes	Lbs. 710
Cabbage	Lbs. 35,936	Spinach	Lbs. 210
Carrots	Lbs. 16,723	Squash	Lbs. 6,201
Cauliflower	Lbs. 3,519	Tomatoes	Lbs. 21,906
Celery	Lbs. 4,796	Turnips	Lbs. 11,306
Corn (green)	Doz. 620	Milk	Gals. 26,083
Cucumbers	Doz. 795	Eggs	Doz. 440
Grapes	Lbs. 200	Chickens	No. 80
Lettuce	Lbs. 4,877	Calves killed (12)	Lbs. 995
Melons	No. 296	Hogs killed (41)	Lbs. 6,772
Onions	Lbs. 10,507	Hay	Tons 115
Parsley	Lbs. 236	Stock beets	Tons 22
Parsnips	Lbs. 7,912		



STATISTICAL REPORT

FOR THE YEAR ENDING 30, 1896.



REPORT OF MEDICAL DIRECTOR.

ANNUAL SUMMARY

Showing the Number of Patients in the Asylum June 30, 1895; Number Admitted, Number under Care and Treatment, Number Discharged, Died, and Eloped during the year, and the Number Remaining in the Asylum June 30, 1896.

From June 30, 1895, to June 30, 1896.	Males.	Females.	Total.
Number of patients June 30, 1895	561	344	905
Number admitted during the year	103	82	185
Whole number under care and treatment.....	664	426	1,090
Number discharged recovered	36	18	54
Number discharged improved	10	12	22
Number discharged unimproved	4	0	4
Number discharged not insane	1	1	2
Number died.....	45	29	74
Number eloped	1	0	1
Number discharged, died, and eloped.....	97	60	157
Number remaining June 30, 1896.....	567	366	933

TABLE I.

Counties from which 185 Patients were admitted from July 1, 1895, to July 1, 1896.

Counties.	Males.	Females.	Total.
Alameda	16	12	28
Humboldt.....	0	1	1
Kings	1	1	2
Monterey	11	2	13
San Francisco	25	40	65
Santa Clara	22	17	39
Santa Cruz	16	3	19
San Mateo.....	5	2	7
San Luis Obispo.....	2	2	4
San Benito	4	2	6
Tulare.....	1	0	1
Totals	103	82	185

TABLE II.

Nativity of 185 Patients, admitted from July 1, 1895, to July 1, 1896.

Nativity.	Males.	Females.	Total.
<i>United States.</i>			
California	23	13	36
Connecticut	0	1	1
Illinois	0	1	1
Iowa	2	0	2
Indiana	2	3	5
Idaho	0	1	1
Kentucky	0	1	1
Massachusetts	0	1	1
Missouri	0	3	3
Minnesota	1	0	1
Michigan	3	0	3
Maine	3	2	5
New York	8	3	11
Nevada	1	0	1
Oregon	1	0	1
Ohio	2	3	5
Pennsylvania	1	0	1
Rhode Island	1	0	1
Texas	1	0	1
United States	2	4	6
Virginia	0	1	1
West Virginia	0	1	1
Wisconsin	2	1	3
Totals	53	39	92
<i>Foreign Countries.</i>			
Australia	1	0	1
Azores Islands	1	0	1
Austria	2	0	2
Belgium	1	0	1
British Columbia	1	0	1
Bohemia	1	0	1
China	4	0	4
Canada	3	3	6
Central America	1	0	1
Denmark	1	0	1
England	4	2	6
France	0	3	3
Germany	7	9	16
Holland	1	0	1
Ireland	8	20	28
Italy	1	0	1
Mexico	1	1	2
Norway	1	1	2
Portugal	3	0	3
Roumania	0	1	1
Sweden	3	1	4
Scotland	2	0	2
Switzerland	1	1	2
Western Islands	2	0	2
Totals	50	42	92
Unknown	0	1	1
<i>Recapitulation.</i>			
United States	53	39	92
Foreign countries	50	42	92
Unknown	0	1	1
Grand totals	103	82	185

TABLE III.

Ages of 185 Patients admitted from July 1, 1895, to July 1, 1896.

Ages.	Males.	Females.	Total.
Between 10 and 20 years.....	5	3	8
Between 20 and 30 years.....	25	17	42
Between 30 and 40 years.....	27	21	48
Between 40 and 50 years.....	14	18	32
Between 50 and 60 years.....	14	11	25
Between 60 and 70 years.....	8	8	16
Between 70 and 80 years.....	5	3	8
Between 80 and 90 years.....	3	1	4
Unknown.....	2	0	2
Totals.....	103	82	185

TABLE IV.

Civil Condition of 185 Patients admitted from July 1, 1895, to July 1, 1896.

Civil Condition.	Males.	Females.	Total.
Divorced.....	0	1	1
Married.....	22	40	62
Single.....	71	26	97
Unknown.....	7	0	7
Widows.....		15	15
Widowers.....	3		3
Totals.....	103	82	185

TABLE V.

Supposed Causes of Insanity of 185 Patients admitted from July 1, 1895, to July 1, 1896.

Supposed Causes.	Males.	Females.	Total.
Alcoholism.....	2	2	4
Alcoholism and head injury.....	2	0	2
Childbirth.....	0	1	1
Cerebral softening.....	0	1	1
Cystitis.....	0	1	1
Convulsions.....	1	0	1
Death of husband.....	0	1	1
Disappointment in love.....	1	1	2
Drink and exposure.....	1	0	1
Death of wife.....	1	0	1
Epilepsy.....	3	0	3
Excessive cigarette smoking.....	1	0	1
Fright.....	0	2	2
Fever.....	2	1	3
Family troubles.....	0	2	2
Head injury and malarial fever.....	1	0	1
Head injury.....	3	1	4
Hereditary.....	3	4	7
Improper mode of living.....	1	1	2

TABLE V—Continued.

Supposed Causes.	Males.	Females.	Total.
Injury to spine	1	0	1
Isolation and seclusion	2	0	2
Ill health	0	2	2
Lactation	0	1	1
Menopause	0	2	2
Masturbation	9	0	9
Overstudy	1	0	1
Overwork	1	2	3
Old age	2	1	3
Phthisis	0	1	1
Paresis	0	1	1
Paralysis	0	1	1
Religion	0	2	2
Sunstroke	2	0	2
Sexual exhaustion	1	1	2
Spiritualism	0	1	1
Typhoid pneumonia	0	1	1
Uterine complaint and confinement	0	1	1
Unknown	56	46	102
Worry over business	4	1	5
Worry and exposure	1	0	1
Worry over physical condition	1	0	1
Totals	103	82	185

TABLE VI.

Class of Insanity of 185 Patients admitted from July 1, 1895, to July 1, 1896.

Class of Insanity.	Males.	Females.	Total.
Acute mania	20	13	33
Chronic mania	4	4	8
Cerebral softening	0	1	1
Dementia	2	1	3
Epileptic	2	1	3
Imbecility	1	0	1
Mania	3	1	4
Melancholia	18	15	33
Monomania	13	1	14
Primary dementia	5	0	5
Religious mania	1	1	2
Recurrent mania	5	3	8
Recurrent melancholia	1	0	1
Senile dementia	5	3	8
Unknown	23	38	61
Totals	• 103	82	185

TABLE VII.

Occupation of 185 Patients Admitted from July 1, 1895, to July 1, 1896.

Occupation.	Males.	Females.	Total.
Barber	1	0	1
Bartender	1	0	1
Brickmaker	1	0	1
Builder	1	0	1
Blacksmith	1	0	1
Clerk	6	0	6
Carpenter	2	0	2
Cabinet-maker	1	0	1
Clergyman	1	0	1
Druggist	1	0	1
Dentist	1	0	1
Dyer	1	0	1
Dressmaker	0	4	4
Domestic	0	5	5
Electrician	1	0	1
Farmer	11	0	11
Gardener	3	0	3
Housekeeper	0	4	4
Hotelman	1	0	1
Housewife	0	42	42
Insurance agent	1	1	2
Journalist	1	0	1
Laborer	31	0	31
Lay brother	1	0	1
Laundry	0	2	2
Miner	1	0	1
Marine engineer	1	0	1
Miller	1	0	1
No occupation	2	0	2
Painter	1	0	1
Plasterer	1	0	1
Powder-maker	1	0	1
Railroad station agent	0	1	1
Restaurant-keeper	1	0	1
Railroadman	2	0	2
Shepherd	1	0	1
Saloonkeeper	1	0	1
School-teacher	0	1	1
Seamstress	0	1	1
Servant	0	1	1
Student	0	1	1
Unknown	19	18	37
Watchmaker	1	0	1
Waiter	2	0	2
Waitress	0	1	1
Totals	103	82	185

TABLE VIII.

Causes of Death of 74 Patients from July 1, 1895, to July 1, 1896.

Date, and Cause of Death.	Age.	Males.	Females.
1895—July—Consumption	37	-----	1
Maniacal exhaustion	28	-----	1
Exhaustion from acute mania	32	-----	1
Epilepsy	19	1	-----
August—Organic disease of the heart	60	1	-----
General paralysis	26	-----	1
Chronic diarrhoea	45	-----	1
General paralysis and exhaustion	31	1	-----

TABLE VIII—Continued.

Date, and Cause of Death.	Age.	Males.	Females.
1895—September—General paralysis and epilepsy	50	1	
Organic disease of brain	51	1	
General paralysis	47	1	
General paralysis	45	1	
October—General paralysis	39	1	
November—Consumption	72	1	
General paralysis	48	1	
Chronic mania and consumption	26		1
Chronic chorea	47		1
Organic disease of brain	32	1	
Maniacal exhaustion	59	1	
Organic disease of brain	56	1	
Chronic mania	69		1
Organic disease of brain	49	1	
Consumption	41	1	
December—Consumption	38	1	
Cerebral hemorrhage	42	1	
Acute dementia and exhaustion	50	1	
Cancer	41	1	
Valvular disease of heart	69		1
General paralysis	43	1	
General paralysis	49	1	
Epilepsy	35	1	
Chronic meningitis	29	1	
Valvular disease of heart and dropsy	63		1
Organic disease of brain	56		1
Organic disease of brain	44		1
1896—January—General paralysis	42	1	
Inanition	65		1
Organic disease of brain	52		1
Cerebral congestion	33	1	
Organic disease of brain	67	1	
Consumption	49	1	
February—Organic disease of heart	51	1	
Paralysis	46		1
Senile exhaustion	69		1
Exhaustion from acute mania	60		1
Consumption	19		1
Enteritis	51	1	
General paralysis	39	1	
Epilepsy	36	1	
March—Valvular disease of heart	70	1	
Epilepsy and capillary bronchitis	47	1	
Gastro-enteritis	52		1
Consumption	21		1
Exhaustion from acute mania	38	1	
Exhaustion from acute mania	62		1
Exhaustion	47		1
Inanition	40	1	
Paralysis of bladder and rectum	71	1	
Exhaustion	Unk'n		1
April—Apoplexy and general paresis	46		1
Consumption	27	1	
General paralysis	34	1	
Shock following accidental fracture of femur	76	1	
May—Exhaustion	23	1	
Chronic pleuritis	75	1	
Senile exhaustion	60	1	
Consumption	21		1
Senile exhaustion	76		1
Epilepsy	57	1	
June—Bright's disease	42		1
Senile exhaustion	86	1	
Consumption	29	1	
Apoplexy	74		1
Organic disease of brain	50		1
Totals		45	29

TABLE IX.

Recapitulation of Causes of Death of 74 Patients, from July 1, 1895, to July 1, 1896.

Cause of Death.	Males.	Females.	Total.
Apoplexy	0	1	1
Acute dementia and exhaustion	1	0	1
Apoplexy and general paresis	0	1	1
Bright's disease	0	1	1
Chronic chorea	0	1	1
Chronic mania	0	1	1
Chronic meningitis	1	0	1
Chronic diarrhœa	0	1	1
Chronic mania and consumption	0	1	1
Cerebral hemorrhage	1	0	1
Cancer	1	0	1
Consumption	6	4	10
Chronic pleuritis	1	0	1
Exhaustion from acute mania	1	3	4
Epilepsy	4	0	4
Enteritis	1	0	1
Epilepsy and capillary bronchitis	1	0	1
Exhaustion	2	1	3
General paralysis	9	2	11
General paralysis and exhaustion	1	0	1
General paralysis and epilepsy	1	0	1
Gastro-enteritis	0	1	1
General congestion	1	0	1
Inanition	1	1	2
Maniacal exhaustion	1	1	2
Organic disease of heart	2	0	2
Organic disease of brain	4	5	9
Paralysis of bladder and rectum	1	0	1
Senile exhaustion	2	2	4
Shock following accidental fracture of femur	1	0	1
Valvular disease of heart	1	1	2
Valvular disease of heart and dropsy	0	1	1
Totals	45	29	74

TABLE X.

Articles Made in the Sewing-Room from July 1, 1895, to July 1, 1896.

Articles.	Number.	Articles.	Number.
Aprons	256	Pillowshams	51
Bandages	54	Pillowticks	93
Basques	48	Property-bags	8
Bedspreads	57	Sheets	117
Blankets (canvas)	8	Shrouds	60
Camisoles	44	Skirts	180
Chemises	105	Suits (men's)	3
Coffinpillows	57	Sunbonnets	29
Drawers	14	Suspenders	50
Dresses	313	Tablecloths	9
Dress skirts	25	Towels	1,062
Mattress-ticks	236	Undervests	8
Nightgowns	24	Window curtains	132
Pillowcovers	691		

STEWARD'S REPORT.

TABLE FIRST.

Amount of Articles Purchased and Consumed, and other Expenses, for the fiscal year ending June 30, 1896.

Articles.	Value.	Articles.	Value.
Flour.....	\$4,141 35	Miscellaneous.....	740 06
Meat.....	10,479 17	Payroll.....	59,570 70
Sugar.....	2,095 25	Carpenter's tools and supplies.....	124 52
Tea.....	532 85	Engine-room tools and supplies.....	523 41
Syrup.....	236 60	Expense of administration.....	2,115 92
Potatoes.....	1,096 98	Freight and express.....	70 79
Butter.....	3,050 01	Farm tools and supplies.....	389 09
Coffee.....	1,834 84	Telegraphing and telephoning.....	59 25
Lard.....	191 96	Laundry machinery.....	28 75
Fresh fish.....	841 58	Baking powder.....	321 73
Eggs.....	1,523 90	Codfish.....	56 30
Beans.....	205 81	Canned goods.....	244 14
Rice and cracked wheat.....	650 40	Dried fruit.....	818 73
Corn and oat meal.....	520 35	Extracts and spices.....	148 64
Salt.....	97 04	Hams and bacon.....	798 75
Vinegar.....	28 55	Macaroni and vermicelli.....	212 70
Small groceries.....	898 18	Soda crackers.....	76 38
Soap.....	732 38	Mackerel.....	120 00
Drugs.....	1,246 04	Salt pork.....	120 40
Liquor and ale.....	97 40	Laundry starch.....	57 53
Tobacco.....	919 82	Tallow.....	113 22
Dry goods.....	1,556 48	Caustic soda and potash.....	41 84
Clothing.....	2,107 77	Shoemaker's supplies.....	115 63
Shoes.....	708 96	Hops and malt.....	73 68
Blankets.....	616 13	Lime and cement.....	40 10
Furniture and crockery.....	513 83	Horseshoeing.....	172 90
Hardware and tinware.....	480 09	Oilcloth.....	45 81
Spoons and cutlery.....	127 13	Rubber sheets.....	93 14
Carpeting and matting.....	179 11	Hay and straw.....	176 77
Grain and feed.....	985 14	Iron beds.....	36 00
Garden tools and seeds.....	89 42	Stoves.....	60 77
Lumber.....	311 67	Curtains and shades.....	163 69
Repairs.....	657 37	Steam table.....	190 00
Brooms and brushes.....	254 74	Fire hose.....	250 00
Books and stationery.....	103 34	Advertising.....	370 00
Gas.....	1,265 99	Floss.....	231 44
Fuel.....	9,547 56		
Paints, oil, and glass.....	788 89	Total.....	\$120,729 09
Bedding.....	237 23		

TABLE SECOND.

Showing the Cost of the Different Departments for the fiscal year ending June 30, 1896.

Departments.	Cost.
Kitchen and dining-rooms	\$28,172 07
Wards	6,621 55
Bakery	4,441 12
Laundry	311 82
Engine-room	9,070 91
Farm, garden, dairy, and stable	1,978 64
Expense of administration	2,115 92
Repairs	736 94
Miscellaneous	3,319 56
Drugstore	1,356 25
Sewing-room	1,309 96
Administration building	399 46
Steward's office	36 67
Payroll	59,570 70
Gas	1,268 74
Laundry building	18 78
Total	\$120,729 09

TABLE THIRD.

Disbursements for the fiscal year ending June 30, 1896.

For What Purpose.	Amount.
Maintenance	\$120,729 09

TABLE FOURTH.

Averages for the fiscal year ending June 30, 1896.

Months.	Average No. of Patients Daily.	Average Daily Expense.	Average Cost per Capita per Day.	Average Cost per Capita per Month.
1895—July	906	\$348 53	\$0 38.4	\$11 92
August	911	319 48	35.0	10 87
September	912	333 51	36.5	10 97
October	922	354 29	38.4	11 91
November	925	327 14	35.3	10 60
December	917	334 06	36.4	11 29
1896—January	916	319 25	34.8	10 80
February	913	340 50	37.2	10 81
March	909	313 01	34.4	10 67
April	911	335 03	36.7	11 03
May	923	310 62	33.6	10 43
June	931	323 60	34.7	10 42
Yearly averages	916	\$329 92	\$0 35.9	\$10 98

TABLE FIFTH.

Products of the Farm, Garden, and Dairy for the fiscal year ending June 30, 1896.

Articles.	Amount.	Articles.	Amount.
Artichokes.....Doz.	6	Peppers (green).....Lbs.	922
Asparagus.....Lbs.	39	Peas.....Lbs.	1,763
Beans.....Lbs.	5,887	Pears.....Lbs.	13,331
Beets.....Lbs.	5,934	Radishes.....Lbs.	853
Cabbage.....Lbs.	43,517	Spinach.....Lbs.	1,710
Carrots.....Lbs.	15,181	Squash.....Lbs.	2,645
Cauliflower.....Lbs.	2,250	Tomatoes.....Lbs.	10,443
Celery.....Lbs.	3,957	Turnips.....Lbs.	14,731
Corn (green).....Doz.	526	Milk.....Gals.	23,972
Cucumbers.....Doz.	771	Eggs.....Doz.	461
Lettuce.....Lbs.	4,024	Chickens.....Doz.	15
Melons.....No.	349	Cows killed (5).....Lbs.	3,022
Onions.....Lbs.	12,500	Calves killed (19).....Lbs.	1,742
Parsley.....Lbs.	244	Hogs (96).....Lbs.	14,141
Parsnips.....Lbs.	4,011	Hay.....Tons	130

BIENNIAL REPORT

OF THE

Trustees of the Southern California State Asylum
for the Insane and Inebriates,

FOR THE

TWO YEARS ENDING JUNE 30, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.
1896.



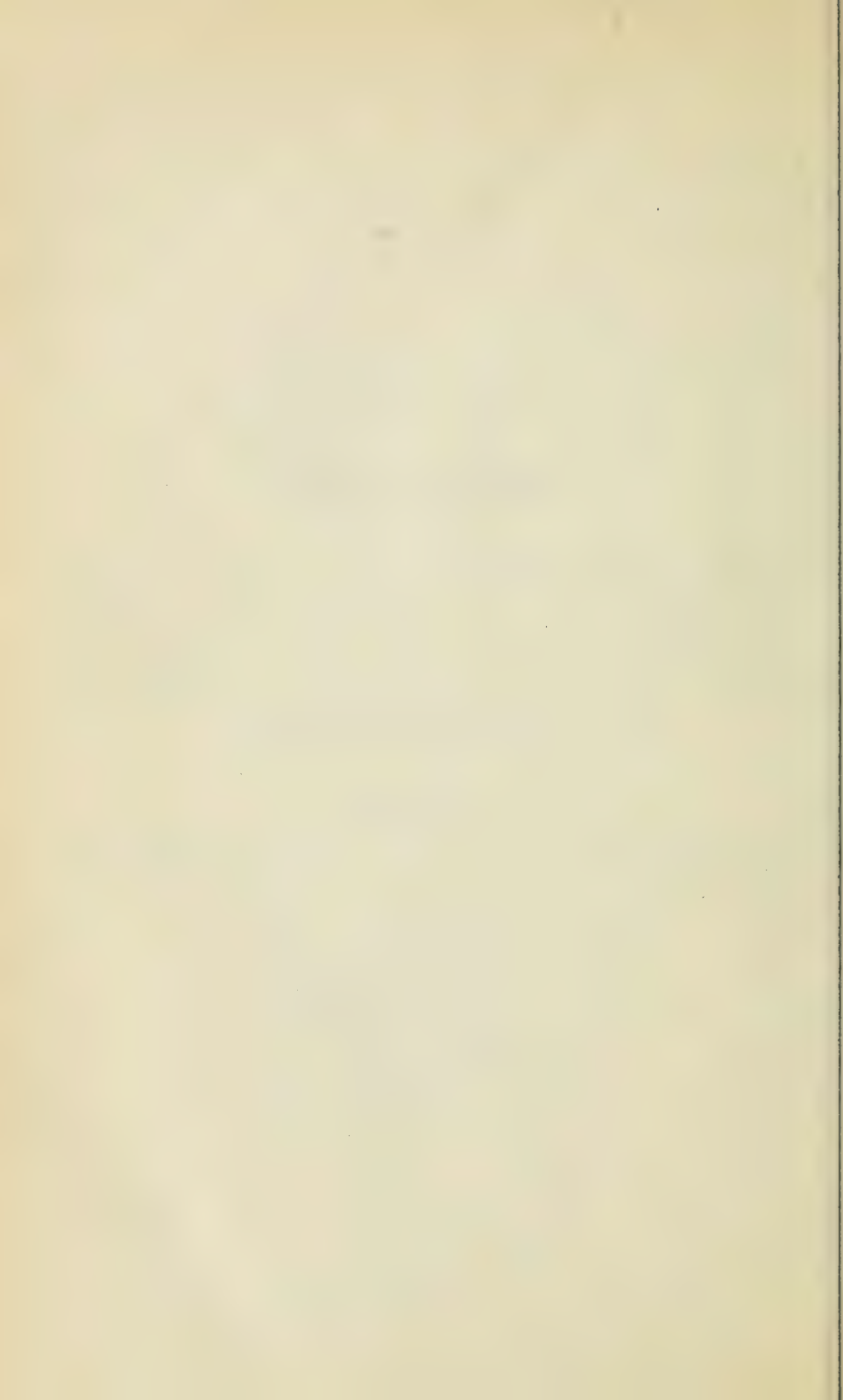
BOARD OF TRUSTEES.

T. B. VAN ALSTYNE, *Chairman*Tustin.
JOHN MCGONIGLEVentura.
H. W. PATTON.....Los Angeles.
JAMES A. GIBSON.....San Diego.
H. L. DREWSan Bernardino.

F. W. RICHARDSON, *Secretary and Treasurer*.

OFFICERS.

M. B. CAMPBELL, M.D.Medical Director.
A. STANLEY DOLAN, M.D.Assistant Physician.



REPORT.

ASYLUM, CALIFORNIA, September 1, 1896.

To his Excellency JAMES H. BUDD, Governor of the State of California:

SIR: In accordance with the law, the Trustees of the Southern California State Asylum for the Insane and Inebriates present this report for the two years ending June 30, 1896, together with the reports of the Treasurer and the Medical Director.

The new Ward Building was completed and ready for occupancy in April, 1895, and relieved the overcrowded condition of the Asylum for the time being. The steady increase in the number of patients, however, has congested the wards again, rendering the erection of new buildings referred to in the Medical Director's Report imperative.

The appropriation for support for the forty-seventh fiscal year was inadequate for the necessities of the institution, although every effort was made to reduce the expense to a minimum; and we are able to report that the per capita cost of maintaining patients has been reduced to 42 cents, and for the next biennial term we believe will not exceed 40 cents.

There will be a deficiency in support for the forty-eighth fiscal year, and we think an appropriation of \$20,000 will be ample to carry us through.

The workings of the Asylum are fully treated in the Medical Director's Report.

We desire especially to commend the management of the institution by Dr. M. B. Campbell, the Medical Director. Not only has he been successful in his treatment of patients committed to his care, but he has also proved himself a man of rare executive ability, as evinced by his superior conduct of the financial and material affairs of the institution.

In everything appertaining to the medical work of the institution, Dr. Campbell has been ably seconded by Dr. A. Stanley Dolan, the Assistant Physician, whose many years of experience in the care of insane patients renders him invaluable.

The following is a summary of needed appropriations, viz.:

Deficiency in support, forty-eighth fiscal year.....	\$20,000
Support forty-ninth and fiftieth fiscal years.....	204,400
Administration Building.....	100,000
One Ward Building.....	88,000
Community dining-room	15,000
Laundry—Increase of drying capacity, etc.....	2,600
Dairy, cowbarn, etc.	5,100
Improvements of roads, ditches, storm-drain, etc.....	30,000
Furnishings, Administration Building.....	12,000
Furnishings, Ward Building.....	10,000
Implement and vehicle-washing shed.....	1,000

All of which is respectfully submitted.

T. B. VAN ALSTYNE,
JOHN McGONIGLE,
H. W. PATTON,
JAS. A. GIBSON,
H. L. DREW,
Trustees.

REPORT OF TREASURER.

RIVERSIDE, CAL., July 20, 1896.

To the Honorable Board of Trustees of the Southern California State Asylum for the Insane and Inebriates:

GENTLEMEN: Herewith is presented a statement of the receipts and disbursements made on the account of the various appropriations for the use of this Asylum for the two years ending June 30, 1896; together with a statement of the receipts and expenditures of the Contingent Fund.

Respectfully submitted.

F. W. RICHARDSON,
Treasurer.

APPROPRIATION FOR ADDITIONAL BUILDINGS AND IMPROVEMENTS.

RECEIPTS.

1894—July 7—Received from State of California	\$8,588 39
July 18—Received from State of California	4,243 95
Aug. 6—Received from State of California	2,583 16
Aug. 10—Received from State of California	5,294 28
Aug. 22—Received from State of California	1,044 00
Sept. 4—Received from State of California	5,017 50
Sept. 24—Received from State of California	1,336 50
Oct. 2—Received from State of California	371 52
Oct. 9—Received from State of California	6,882 28
Nov. 3—Received from State of California	9,663 51
Nov. 24—Received from State of California	6,929 47
1895—Jan. 11—Received from State of California	4,761 46
Mar. 6—Received from State of California	8,602 23
April 1—Received from State of California	7,115 30
May 24—Received from State of California	4,515 78
June 15—Received from State of California	1,240 74
June 19—Received from State of California	252 50
July 5—Received from State of California	110 00
Aug. 5—Received from State of California	20 00
	<hr/>
	\$78,572 57

DISBURSEMENTS.

Amount paid out on order of Board of Trustees, per vouchers on file, as follows:

Mason and iron work on Ward Building	\$42,157 93
Carpenter and plaster work on Ward Building	14,208 09
Plumbing, gas and steam-fitting on Ward Building	6,650 00
Painting and polishing in Ward Building	1,506 71
Tin and galvanized iron work in Ward Building	4,520 70
Electrical work in Ward Building	888 00
Salary of Superintendent of Construction	2,500 00
Grading and planting of trees and shrubbery	1,330 71
Attorneys' fees	437 50
Cows	130 00
Engineering expenses	171 50
Hardware and iron pipes	413 17
Lumber	278 93
Fluming	103 12
Cement work	10 00
Harness	17 00
Exchange	63 11
	<hr/>
	\$75,386 47

Of the balance there is held under attachment of the Superior Court on the claim of Deven & Chisholm, for carpenter and plaster work, the sum of \$3,164 10, and the balance, \$22, is held awaiting a settlement with Riley & Loane.

DEFICIENCY IN APPROPRIATION FOR ADDITIONAL BUILDINGS AND IMPROVEMENTS.

RECEIPTS.

1895—May 3—Received from State of California	\$65 25
July 8—Received from State of California	798 25
Oct. 12—Received from State of California	5,645 34
	<hr/>
	\$6,508 84

DISBURSEMENTS.

Paid out on order of Board of Trustees, per vouchers on file:

Steam and water connections	\$2,931 00
Sewer and gas connections	1,550 00
Salary of Superintendent of Construction	672 98
Locks and keys	504 50
Sewer-pipe	174 25
Electrical work	156 30
Plumbing and gasfitting	335 25
	<hr/>
	\$6,324 28

Your Treasurer has in his possession Controller's warrant No. 5637 for \$37 11, in favor of Riley & Loane, awaiting a settlement; and Controller's warrant No. 5639, for \$147 45, in favor of Deven & Chisholm, held under attachment of Superior Court.

FURNITURE NEW WARD BUILDING.

RECEIPTS.

1895—June 15—Received from State of California	\$7,679 02
July 8—Received from State of California	286 74
July 22—Received from State of California	1,386 76
Sept. 3—Received from State of California	17 70
Sept. 30—Received from State of California	621 10
1896—June 30—Received from State of California	8 00
	<hr/>
	\$9,999 32

DISBURSEMENTS.

Amount paid out by order of Board of Trustees, per vouchers on file, as follows:

Iron beds	\$1,517 50
Blankets	1,835 00
Mattresses and pillows	2,094 25
Furniture, chairs, tables, etc.	1,198 40
Sheeting, quilts, linen, etc.	1,151 20
Gas fixtures	557 30
Window shades	183 10
Carpets	325 47
Tinware, china, crockery, etc.	822 58
Fire extinguishers	243 02
Restraints	71 50
	<hr/>
	\$9,999 32

DEFICIENCY IN SUPPORT—FORTY-FIFTH FISCAL YEAR.

RECEIPTS.

1895—Apr. 6—Received from State of California	\$49,230 06
---	-------------

DISBURSEMENTS.

Paid out on certificate of indebtedness issued by order of Board of Trustees, per vouchers on file	\$49,222 71
The balance, \$7 35, held subject to presentation of certificate of indebtedness.	

SUPPORT—FORTY-SIXTH FISCAL YEAR.

RECEIPTS.

1894—Aug. 3—Received from State of California	\$2,717 80
Sept. 24—Received from State of California	2,841 90
Sept. 24—Received from State of California	2,290 35
Oct. 9—Received from State of California	2,252 98
Oct. 19—Received from State of California	2,796 10
Oct. 22—Received from State of California	25 20
Nov. 3—Received from State of California	2,867 83
Nov. 26—Received from State of California	2,785 00
Dec. 8—Received from State of California	2,453 14
Dec. 26—Received from State of California	2,768 25
1895—Jan. 31—Received from State of California	2,312 47
Feb. 15—Received from State of California	3,799 98
June 17—Received from State of California	2,796 00

1895—June 25—Received from State of California	\$4,024 11
June 25—Received from State of California	2,922 17
June 27—Received from State of California	4 20
July 12—Received from State of California	3,494 23
July 22—Received from State of California	3,014 26
Aug. 5—Received from State of California	6,205 76
Oct. 22—Received from State of California	125 00
Dec. 23—Received from State of California	10 00

 \$52,506 73

DISBURSEMENTS.

Amount paid out on order of Trustees, per vouchers on file \$52,506 73

DEFICIENCY IN SUPPORT—FORTY-SIXTH FISCAL YEAR.

RECEIPTS.

1895—May 4—Received from State of California	\$2,796 50
May 4—Received from State of California	2,828 15
May 4—Received from State of California	2,203 10
May 4—Received from State of California	2,774 52
May 24—Received from State of California	2,824 00
May 27—Received from State of California	2,008 14
June 1—Received from State of California	2,851 27
June 20—Received from State of California	341 06
Sept. 30—Received from State of California	750 00

 \$19,376 74

DISBURSEMENTS.

Amount paid out on order of Board of Trustees, per vouchers on file..... \$19,376 74

SUPPORT—FORTY-SEVENTH FISCAL YEAR.

RECEIPTS.

1895—Aug. 26—Received from State of California	\$3,086 65
Sept. 3—Received from State of California	1,732 63
Sept. 21—Received from State of California	3,059 55
Oct. 22—Received from State of California	1,581 28
Oct. 22—Received from State of California	250 00
Nov. 20—Received from State of California	2,985 00
Dec. 5—Received from State of California	1,892 89
Dec. 5—Received from State of California	2,945 00
Dec. 23—Received from State of California	1,871 08
Dec. 23—Received from State of California	2,940 50
Dec. 23—Received from State of California	2,262 50
1896—Jan. 14—Received from State of California	1,065 46
Jan. 30—Received from State of California	3,360 25
Feb. 24—Received from State of California	5,812 40
Mar. 16—Received from State of California	2,925 00
April 1—Received from State of California	2,937 36
April 25—Received from State of California	8,550 29
May 30—Received from State of California	2,945 24

 \$52,203 08

DISBURSEMENTS.

Amount paid on order of Board of Trustees, per vouchers on file \$52,203 08

CONTINGENT FUND.

RECEIPTS.

1894—June 30—To balance on hand	\$2,186 85
Received from board of patients	8,067 00
Received from sale of oranges and lemons	1,718 83
Received from meals given strangers	259 69
Received from sale of hogs	138 10
Received from sale of old sacks and cans	16 35
Received from rent of cottages	144 00
Received for use of clothing	5 00
Received from sale of wooden box	3 00

\$12,538 82

EXPENDITURES.

Agricultural implements	\$164 49
Advertising and printing	131 03
Attorney's fees	187 50
Baling hay	85 50
Blankets	54 58
Carriages	60 00
Clothing	172 00
Carpenter work	238 35
Cement and lime	64 60
Cement pipe	67 40
Carfare	33 75
Coal	190 35
Damage by stock	35 00
Discharged patients	152 20
Dehorning clippers	16 75
Drugs	65 68
Electrical apparatus and wiring	463 64
Express, telegrams, and postage	162 66
Eggs	295 67
Entertainments for patients	15 00
Flag	4 00
Fertilizer	272 00
Filing cabinet	28 70
Fixtures for social hall	55 72
Fire hose	335 50
Fire alarms and telephones	376 62
Foot lathe	38 50
Furniture	73 65
Frame building	100 00
Fish	27 90
Freight	17 81
Fruit	82 81
Gas burners	7 50
Grading	172 50
Gasoline	2 50
Grinding bones	47 30
Hogs	22 00
Horses and cows	782 50
Hymn books	71 25
Horseshoeing	8 50
Hardware	126 35
Horse hire	18 00
Incubator	15 00

Laundry fixtures	\$14 00
Lawnmower	9 65
Lumber	295 28
Liquors	45 25
Labor	415 74
Milker	2 92
Milk	24 48
Music	108 50
Mason work	219 75
Malt (for yeast)	10 90
Needles	9 60
Notary's fees	13 35
Newspapers	19 60
Piano	130 00
Poultry	170 25
Paperhanging	18 00
Painting and paints	29 55
Plants, trees, and shrubs	161 75
Pasture	20 41
Produce	22 85
Restraints	7 40
Rubber stamps	2 38
Refunded board	105 00
Rent of piano	50 00
Returned escapes	143 60
Religious services	396 00
Repairing shoes	4 50
Rent of circular saw	20 00
Repairing clocks, glasses, etc.	20 80
Repairs to typewriter	28 60
Seed, potatoes	25 24
Spraying pump	37 80
Spraying material	4 50
Surgical instruments	23 31
Seed, grain	193 58
Seeds	14 35
Sewing-machines	35 00
Stationery	27 17
Services at fire	15 00
Typewriting	19 25
Telephone rental and switching	85 95
Traveling expenses	388 90
Tank trap	25 50
Tuning piano	6 50
Upholstery	5 03
Veterinary services	20 00
Water assessment	720 00
Whitewashing	34 10
	<hr/>
	\$9,544 22
Balance June 30, 1896	2,994 60
	<hr/>
	\$12,538 82

REPORT
OF
MEDICAL DIRECTOR

FOR THE

Biennial Period Ending June 30, 1896, Including the Forty-sixth
and Forty-seventh Fiscal Years.

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REPORT OF MEDICAL DIRECTOR.

OFFICE OF MEDICAL DIRECTOR,
SOUTHERN CALIFORNIA STATE ASYLUM
FOR THE INSANE AND INEBRIATES,
HIGHLANDS, September 1, 1896.]

To the Honorable the Board of Trustees:

GENTLEMEN: I hereby respectfully submit my report of the affairs of this Asylum for the forty-sixth and forty-seventh fiscal years.

I shall first present the summaries, tables, averages, and percentages, which are the epitomized results of the various statistics that have been compiled, in order to give a clear understanding of the work of this institution during the period extending from July 1, 1894, to June 30, 1896, inclusive. The aggregate results are also shown in columns headed, "Since the opening of the Asylum." In examining the figures thus shown for the entire life of the institution, the fact should be borne in mind that the first year of 1893-94 gives the records for but eleven months; this abbreviation of the full calendar year having its natural result in the reduction of totals, and the increase and diminution of percentages deduced from what may be termed the "Vital statistics" of the Asylum. It also should be observed that we opened upon our career of usefulness with one hundred patients, transferred from the older institutions of the State. These one hundred incurables, however, form an integral part of the records of the institution, and must be accorded their proper sphere in all statistics.

There were admitted during the period 351 men and 161 women, a total of 512; the ratio being something over two men to one woman. The same ratio obtains, substantially, since the opening of the Asylum. Admissions.

The seven southern counties sent to us, of course, the larger part of all the patients admitted; those from the other counties being so few as to have little effect upon the general result. In the comparison of figures an apparent discrepancy occurs in the commitments from the various counties. Taking the United States Census of 1890 as the basis of calculation, and computing the ratio of commitments from each county, since the opening of the Asylum, to the thousand of population, respectively, the following results manifest themselves, viz.: The seven southern counties.

Ratio of
admis-
sions.

Santa Barbara County, with a population of 15,754, committed 24 patients; or a ratio of 1.56 in the one thousand of population.

From Ventura County, with a population of 10,071, we received 38; the ratio being 3.80 in the thousand of population.

Los Angeles County, population 101,454, committed 430; the ratio being 4.23 in the one thousand of population.

San Bernardino County,* with an estimated population of 17,000, sent to us 138 patients; the ratio in the thousand of population being 8.12. The large quota of commitments from San Bernardino County is partly explained by the location of the institution, and the fact that cases are occasionally brought from other counties for examination and commitment at San Bernardino, but a few miles distant.

Riverside County, estimated population 8,000, committed 42 patients, showing a ratio of 5.25 in the thousand of population.

Orange County, population 13,589, contributed 33 toward the list of admission; the ratio being 2.44 in the thousand.

From San Diego County we received 86 out of a population of 34,987; the ratio being 2.46 in the thousand.

Insanity
in Califor-
nia.

Compara-
tive ratios
of insan-
ity.

California
as a health-
resort, a
factor.

These figures remind me of a question which is frequently asked: "*Is there more insanity in California than in other States?*" The Reports of the United States Census of 1890 show that the District of Columbia stands at the head of the list, with 7.13 to the thousand of population. Nevada follows with 4.59 to the thousand, and California comes third, with 3.80 to the thousand. New York, since the passage of the "State Care Act," 2.77 to the thousand; Connecticut and Massachusetts, over 2.69 to the thousand, and so on; those having the highest ratios, in the order named. For the whole population of the United States, minus Alaska, Indian Territory, New Mexico, and Oklahoma, which are not reported, and whose insane were probably cared for in other States, the ratio of insane is 1.46 in the thousand of population. According to these figures, California stands third on the list. But is this a legitimate showing? I believe not. The fact that California has become one of the world's great health-resorts for those suffering from diseases of nearly every type, is well established. It has become the Italy of America, the Riviera of the Western Hemisphere. In this portion of the State we find all classes of invalids, many of them having passed the stage when human aid will avail; and too

* The Census of 1890, taken before the division of San Bernardino County, gave its population at 25,497, of which it is estimated that 17,000 remained in what is now San Bernardino County, and 8,000 went into the new County of Riverside.

often encouraged by physicians and friends to seek health, wealth, and long life in this hospitable clime. This unfortunate state of affairs frequently works great hardship to the invalid; and is heaping an unjust and unrequited burden upon the taxpayers of California.

There is another element which enters into the dilation of insane statistics in California. I refer to narcomania. ^{Narco-} ^{mania.} Nowhere else in the United States is the abuse of opium, morphine, cocaine, etc., so prevalent as on the Pacific Coast—and particularly in California. The Orientals have planted a pernicious habit in our soil. It has thrived. Its noxious influences permeate every stratum of society. All the State institutions for the insane have to deal with the insanities induced by drug inebriety, and the large ratio of mental aberration in our State is due, in a great measure, to the dissemination of this vice, which threatens the vitiation, physical, mental, and moral, of future generations. The number of patients who are committed as insane from narcomania is steadily on the increase. The asylums, hospitals, almshouses, penitentiaries, jails, and police stations give testimony to the accuracy of this statement. This class of dependents adds largely to the burdens of the taxpayer; and could some statute be devised by which the evil might be arrested, the ultimate results would eloquently indorse the wisdom of our law-makers.

I would suggest that an earnest appeal be made to the Legislature for the enactment of such severe inhibitory penalties as shall discourage the indiscriminate sale or distribution of drugs of this character. In my judgment, it should be made a felony to barter, sell, or give away, opium, morphine, cocaine, chloral, and other narcotics, except upon the prescription of a registered physician, the said prescription accurately to state the amount requisite, *and to be but once filled.* ^{Restric-} ^{tions upon} ^{the sale of} ^{narcotics.}

There are ordinances touching upon this matter in some of the larger municipalities of California, but a statutory regulation would be more expedient, and less liable to evasion.

Furthermore, the experience of this Asylum has proven that a large number of patients, who are not legitimate subjects for asylum treatment, are committed to our care. Either the provisions made by the counties and cities for the care of the old and helpless poor are inadequate, or the desire to shift burdens which legitimately belong to the counties, upon the State, has worked a hardship from which we have suffered materially since the opening of this institution. The firm stand taken by our Governor, the Hon. James H. Budd, regarding this matter, ^{Aged, sick,} ^{and indi-} ^{gent.} ^{Rejection} ^{of incom-} ^{petents.}

has actuated us in returning a number of these incompetents to the counties from which they were committed; and I find that a still more rigid enforcement of my duty in this particular will be required in the future, to the end that we may be enabled to care for the acute, dangerous, and curable cases, the legitimate demands of whom will be soon greater than our capacity can satisfy.

Residence
before ad-
mission.

In this connection the table showing the length of residence in the State before admission is of particular significance. It is interesting to note that 17.38% of all admissions was known to be non-resident; and it is fair to assume that of the 9.76% of "Unascertained," a major portion had also failed to acquire a residence. Of the total admissions, 9.18% had been in the State less than six months before admission, and 3.12% less than three months. These figures, taken in connection with the nativity tables, would seem to indicate, deductively at least, the possibility of assisted immigration, which I have suspected in a number of cases.

Return of
non-resi-
dent
insane to
other
States.

The New York State Commission of Lunacy has recently inaugurated a plan for returning to their own States a certain class of non-resident patients. I believe that we would be financially benefited directly by such an arrangement. There are now in this Asylum a number of incurable patients who may live for years. They were insane when they came to this State, and were admitted as patients here within a few days or weeks after their arrival.

At a fair estimate it costs 40 cents a day to care for a patient, and many of these cases cited cost much more than that sum, as frequently they are filthy and destructive; and require more than their proportion of supervision. The actual cost would be, for one year \$140, for five years \$700; and if they should stay with us the average life of the insane (which is about twenty-one years), the cost would be, for one patient, \$2,940. This does not take into consideration the valuable room usurped, which might have afforded space for the treatment of ten or twelve curable cases in that length of time, greatly to the advantage of the latter, and more in accordance with the object for which this institution was constructed. The purpose of the New York authorities in returning this class of patients is to limit "the vitiation of the hospital statistics occasioned thereby, with reference to the *apparent* increase in insanity."

Vitiation
of insane
statistics.

I feel confident that a thorough digestion of the facts stated and statistics presented in this report will be sufficient to convince the reader that, if the patients who have no legitimate claim upon us were removed, our percentage of insanity would fall far below where it now stands, and many thousands of dollars be annually saved our State Treasury.

Reduction
of insane
in Califor-
nia.

Of the 512 patients admitted during the period, 66 have been over sixty years of age at the time of admission, 133 over the age of fifty years, and 191 over forty years. The greatest number have been between the ages of thirty and forty; the next greatest number in the classification, between the years of twenty and thirty. Two patients over the age of eighty found their way to the Asylum during the period. The commitment of persons of advanced age is a factor in the extension of the mortuary list, as a glance at those tables will disclose. These cases too often exhibit a rare lack of filial affection; and remind us that, notwithstanding we are a Christian people, a few of our citizens might enlarge their respect for their old and decrepit dependents by close study of the ethics of ancestral worship, as practiced by the "Heathen Chinese."

Ages of
patients at
admission.

Commit-
ment of
the aged.

Of the 802 patients admitted since opening, 483, or 60.22%, are native Americans; 277, or 34.54%, were of foreign birth. The nativity of 42 was unascertained, a percentage of 5.24. A large part of the latter were clearly of foreign birth, but the commitment must be adhered to in the compilation of these statistics, although it may be apparent to the most casual observer that the patient cannot claim nativity as an American.

Nativity
percent-
ages.

Native sons and daughters to the number of 65 have been admitted during the same period, or a percentage to the whole number of 8.11. The percentage of Californian natives admitted, to the total number of American born, is 5.61. Among those of foreign birth, Germany, Ireland, England, France, Sweden, Canada, and Italy furnish the greater number, in the order named.

Native
sons and
daughters.

Foreign
born.

Contrary to the popular belief, we find from examining the "Table of Occupations," that the professional classes, which include the so-called brain-workers, furnish but 3.99% of the insane admitted, while the agricultural and sedentary each contributes about 12%, which seems somewhat peculiar in view of the different habits of life presented by the two last named classes. The "Table of Occupations" has been classified, and the figures of the last previous report rearranged and made to

Occupations
of those ad-
mitted.

conform thereto, for reasons similar to those which prompted the same method of dealing with supposed causes of insanity, and which are more fully stated in another part of this report.

The civil
condition.

Of the entire number of admissions since opening, we find that women who have been married predominate, while an opposite condition obtains in consideration of the male admissions. A scrutiny of this point in comparison with the statistics of institutions situated in communities where the male element of population is in the minority, possibly might disclose a different result.

The sup-
posed
causation
of insan-
ity.

The commitments accompanying insane patients allege an endless list of causes. There is practically no limit to the variations in which identical causes are stated. It is difficult enough to arrive at an approximate of the true excitant, or remote causes of insanity in the greater number of cases, where uniformity of statement exists. Where no system of classification has been followed, the labor is cumulative; and, in time, the entire space devoted to the present report might become necessary for a table showing in detail the supposed causes, as shown by the examination upon commitment, brought up from the initial period of the institution to the date of issue.

A causation table, covering but an annual or biennial term, would have but little scientific value. It is only when considered in totality that such statistics assume their proper significance. For these several reasons a classification has been attempted for the record of these supposed causes which may be adhered to in the years to come with little or no modification, and the figures given cover not only the last biennial period, but also the records of the institution from its opening. And as age comes to us, should the same system be continued, the final summaries may prove of some value to the alienist and student of statistics. In the classification, due prominence has been granted those well-recognized factors in the causation of insanity, such as heredity, inebriety, sexual derangements, climacteric, casualties, etc.

Heredity
as a cause.

Heredity, as a cause, claims 9.10% of all admitted; while of the 28.06% of cases where the causation has eluded the examining physicians, it is safe to say that a major portion is attainted with an hereditary tendency, either directly, indirectly, or collaterally.

History of
heredity.

It should be noted that while heredity is assigned as the supposed cause of insanity in but 9.10%, close inspection of the medical examination upon commitment reveals that 22.31% of

the total admissions had a family history of insanity. This is over 13% greater than the result achieved by using the figures of the table of supposed causes, and is due to the fact that the family history of patients is given in the transcript of the medical examination, at a part distant from the blank line devoted to the supposed causation. In nearly all cases of insanity, where there is an admitted history of mental alienation in the family of the patient, it is perfectly permissible to set down the cause, or the supposed cause, as "Heredity."

While friends of the patient sedulously conceal such matters from the physicians at the court inquiry, 43 cases of undoubted syphilitic history discovered themselves upon our examination of patients after admission. History of syphilis.

While we are obliged to follow the commitment in the supposed cause of insanity, it becomes necessary for us to determine the forms of mental disease from observation and examination, without regard to the diagnoses appearing upon the commitments. The table giving this data has been carefully compiled from our physical examination of patients, after their reception; and the previously reported records of this nature have been modified in conformity therewith, bringing the table forward to date, for the entire life of the institution. Forms of insanity.

General paresis, dementia senilis, and epileptic dementia, forms, each, about 6% of the entire number of admissions; the acute forms of mania and melancholia, of course, being the most prevalent. Most prevalent forms.

The first year of this period 29 patients died, and during the second year 32, giving an average mortality of 5.69% for the period, to the total number treated. Necrology.

The average age at death was 47 years. Of the 61 deaths, 28 occurred in patients in less than six months after their admission. Of these 28, 18 died in less than thirty days after admission, and 9 in less than ten days. Age at death.

Forty-five of the deaths were of patients who entered the institution doomed some day to swell the necrological records; 16 being afflicted with general paresis, 9 dementia senilis (old age), 6 dementia epileptic, 7 chronic dementia, and 7 acute delirious mania—a very fatal form of insanity. There were, also, 4 deaths from phthisis pulmonalis. Causes of death.

Of the 512 admissions during the period, 189 recovered, and were so discharged, giving a percentage of recoveries to admissions of 36.91, as compared with a percentage of 14.83 during the former biennial period, an increase of 28.08%. Percentages of recoveries.

Method of treatment. In the method of treatment we have followed, to the best of our ability, the plan adopted when the institution opened, viz., the individual treatment of each case, endeavoring to establish the hospital plan of caring for our patients, to the greatest extent compatible with our facilities.

Individual care and treatment. "The management of an Asylum for the insane is, as a rule, efficient, satisfactory, and successful, in proportion to the degree of individualized care and attention bestowed upon its patients."

To this end, our sick dormitories are manned by efficient nurses, where rest in bed, liquid nourishment, fat inunctions, massage, and internal medication, together with the pleasantest surroundings we can offer, are used, as the cases require, to bring about a restoration to mental and physical health. Another important feature of this treatment, and one greatly to be desired, is the increased freedom from restraint, either mechanical or medicinal, which it affords.

Location of the Asylum. I am becoming more convinced each year that wisdom was shown in the location of this institution. While we have a few hot days, patients never complain of them. And raw, cold winds, heavy fogs, and undue humidity are conditions from which we are practically free.

Employment of patients. The table showing the employment of patients in useful vocations since the opening of the Asylum, presents data which may prove of interest. On an average, 101 patients of both sexes have been employed usefully in various ways each working day, and the percentage of such so employed averages 34. In the laundry, sewing-room, dining-room, and kitchen, the patients render us very valuable aid. The dairy, carpenter-shop, farm, stable, and other departments are also indebted for their increasing utility to the same source.

Amusements and diversions. As yet we have not been able to furnish as elaborate a program of amusements as many of the older institutions. While our library is sufficient to cover our demands in this direction for the present, our facilities for light amusements or recreations, excepting those which are possible inside of the wards, have not increased. Neither has the demand for such been as apparent as it will be from now on. We have been able to supply, in the way of labor, a diversion for all those who would have been physically able to engage in sports or amusements demanding bodily exertion. Our commodious amusement hall is utilized once each week for amusement purposes, either of

home production or by extraneous aid. Each Sabbath religious services are held, the clergy of the different Christian sects officiating in rotation. The improvements which have been made in the amusement hall during the period are such as to add materially to its appearance and to its utility. Religious services.

We have received many kind remembrances from friends of the institution, in the way of literature of various kinds. The press has generously borne in mind the needs of the patients, and the following newspapers and periodicals are received gratuitously through the mails, viz.: Newspapers.

Dailies: San Francisco Evening Post, Los Angeles Evening Express, Sacramento Record-Union, Sacramento Bee, San Bernardino Times-Index, San Bernardino Sun, Daily Los Angeles Hotel Gazette, Kansas City Star, Chicago Times-Herald, San Diego Sun, Ventura Democrat. Gratuitous subscriptions.

Weeklies: Ontario Record, Deutsche Zeitung of San Diego, Escondido Times, Riverside Press and Agriculturist, Redlands Citrograph, Journal of Electricity, Chicago Bearings, San Francisco City Argus, American Catholic News, New York Observer, Los Angeles Capital, Breeder and Sportsman of San Francisco, Los Angeles Rural Californian; The Conglomerate, published by the inmates of the State Homœopathic Hospital at Middletown, N. Y.; Pacific Churchman, Highlands Citrus Belt, Colton News, Fruitman's Guide of New York, Los Angeles Labor World, New Orleans Picayune, Cincinnati Enquirer, and many sample and special copies of other publications from different parts of the country.

These journals are of beneficial interest to patients, and regularly find their way to the different wards. We desire to express our appreciation of these favors, and to bespeak further contributions of a similar kind from those interested in the welfare of the State's charges.

Our expenses have steadily decreased at regular periods during the life of the institution. This fact is clearly demonstrated by our payroll, which has materially decreased from time to time, in comparison with the service rendered, as shown by each month of the biennial period. Expenses.
Payroll.

For the fiscal year ending June 30, 1894, the average number of patients under treatment daily was $159\frac{1}{4}$, and the average amount of the monthly payroll, \$2,522 85.

For the fiscal year ending June 30, 1895, the average daily population was $291\frac{3}{8}$, the average payroll, \$2,822 66.

For the fiscal year ending June 30, 1896, the daily average

number of patients was 414½, and the average monthly payroll, \$2,963 85.

Pro rata
decrease.

Thus, we see that during the third year we averaged nearly twice as many patients as during the first year, while the monthly payroll has increased but an average amount of \$441, or in a ratio of but one seventh. I mention this to direct your attention to the fact that, as our population increases, our per capita expense will materially diminish. For the last three months of the period the average per capita cost for the maintenance of patients has been 42 cents.

Deficien-
cies.

It has been necessary each year, so far, for the State Board of Examiners to grant us a deficiency for maintenance, which has resulted in an increased cost to the State for legitimate expenses, which might have been obviated had a sufficient appropriation been made originally on this account, as asked for. A knowledge of the fact that furnishers of supplies may be obliged to receive "Certificates of Indebtedness," running from the latter part of the first fiscal year to the meeting of the Legislature at which is made the appropriation to meet the deficiency necessarily granted by the State Board of Examiners, compels the bidders for contracts to add a sufficient amount to their bids to cover the interest on the sums of money held in suspension by the issuance of these certificates of indebtedness; at the same time working a grievous hardship to the employés, who in years past have been compelled to discount these tokens at rates ranging as high as 18%; whereas, not a dollar more would have been expended out of the appropriation had the full amount asked for been initially granted for the maintenance of the institution.

Certifi-
cates of
indebted-
ness.

Mainte-
nance 49th
and 50th
fiscal
years.

40 cts. per
capita.

At a per capita cost of 40 cents, it will require, on the basis of a population of 700 patients (which is a conservative estimate), the sum of \$204,400 for the support of the institution for the forty-ninth and fiftieth fiscal years. This is the same per capita which was asked for and granted by the Legislature as its last session for the support of the older institutions. It has proven insufficient to carry us through in the past; but with an increased population, I believe we shall be able to maintain ourselves with a per capita of 40 cents.

Deficiency
for 48th
fiscal year.

Your Honorable body will recollect that we requested from the last Legislature the sum of \$170,000 for maintenance for the forty-seventh and forty-eighth fiscal years. This request was based upon an estimate of an average population of 400 patients, and was a conservative estimate. This demand was

cut down to \$116,000, which was much less than our requirements, and has been so demonstrated by the fact that, notwithstanding the small amount of money which has been used by us, considering the number of patients cared for, we have been compelled to ask the State Board of Examiners to grant us a deficiency for the forty-seventh fiscal year, and shall be forced to ask the Legislature for an appropriation of \$20,000 to carry us through the balance of the forty-eighth fiscal year.

We are compelled to ask for a liberal appropriation this session for increased facilities for the accommodation of patients, as well as for other necessary buildings and improvements. It is generally conceded by all who visit us in our interest, that we need an Administration Building; as the room which we have occupied for this purpose since opening, rightfully belongs to the patients. A structure such as we require would cost \$100,000, and we would require \$12,000 additional to adequately furnish the same.

Increased facilities.

Administration building.

The two upper floors of the Administration Building will be utilized for the accommodation of patients. The rapidly increasing population soon will necessitate new wards for this purpose, and their demands are the first to be considered.

We also require a separate wing for the female patients. Under the present arrangements, the females occupy the third floor of the two wings, which is totally inadequate to meet our present demands, as the ambulatories and hallways are now occupied by beds for patients, and the wards are overcrowded. The estimated cost of this wing will be \$88,000, and \$10,000 additional will be necessary for the proper furnishing of the same.

Female wing.

A great and immediate relief to our overcrowded condition would be afforded by a community dining-room. The second floor of this building could be utilized for dormitories to accommodate outside help—for whom there is no provision at present. A portion, also, might be temporarily used for a quiet class of patients. The cost of this building is estimated at \$15,000, which includes furnishings for the same. It would be necessary, of course, to affix screens to all the windows of this building.

Community dining-room.

We have already outgrown our laundry, the capacity of which should be doubled. During last winter, washing was frequently obliged to be laid over from one day to another, owing to the lack of drying facilities. The heavy machinery, now in place, is sufficient; but the capacity of the building and

Additions to laundry.

drier, and floor-space, are absolutely inadequate. It is estimated that these requisite additions will cost \$2,600.

Increased
dairy facil-
ities.

We should have an appropriation for a barn for our dairy uses, sufficiently large to accommodate fifty cows. The amount needed for barn, corrals, piping water, dairyman's cottage, hog-pens, etc., is estimated to be \$5,100.

Stable ad-
ditions.

The necessity of more room for the housing of tools, farm implements, wagons, and vehicles, is great; as well as an addition to the horse barn, for the purpose of a wagon and carriage washing-shed. The estimated cost for these improvements is \$1,000.

Improve-
ments of
grounds,
storm
ditches,
etc.

I believe that the same appropriation should be asked for, as was requested and granted by the Legislature at its last session, for the improvements of the grounds, roads, ditches, and curbs; namely, \$30,000. This includes a system of storm-drains and irrigating ditches, to which a large amount of consideration has already been given by the Legislature and State officers, as well as by your Honorable Board, and those locally interested.

Farm, and
its prod-
ucts.

By referring to the report of the Steward, you will observe that our ranch, all of which is under cultivation, has responded bountifully to the care bestowed upon it. For particulars I refer you to Table No. 21 of the Steward's Report, which is exhaustive and complete.

Division of
ranch.

The ranch is divided about as follows: Orchard, 60 acres, 10 of which is in bearing; garden and small fruits, 15 acres; alfalfa, 35 acres; stock-feed, such as pumpkins, beets, carrots, corn-fodder, etc., 25 acres. The balance, except that portion occupied by the buildings, lawns, shrubbery, and contiguous grounds, is in barley.

Water-
supply.

Our domestic water-supply is not satisfactory, the source of the same being the Bear Valley Lake, 35 miles distant; the conduit for the last 8 miles being an open ditch. A cloudburst or heavy rain in the mountains, and, frequently, the irrigation of land which has latterly been improved, lying above the ditch, pollutes our water to such an extent as to render it unsanitary, and absolutely unfit for domestic uses. We are making an effort at present to develop a supply by means of a tunnel driven into the foothills at the northern boundary of our property. Should this succeed as well as we anticipate, we shall obtain a sufficient supply for domestic purposes for a limited period. The work has not yet advanced, however, to a

Prospect
of water
develop-
ment.

degree where the ultimate result of the prospect can be definitely foretold.

Our sewerage system, about which there was some discussion a couple of years ago, has proven entirely adequate to our needs up to the present time. Sewerage system.

Among the substantial improvements which have been made during the past two years, none have been a source of greater satisfaction than the installation of the electric light and power, which we were enabled to secure through an Act of the Legislature, passed at its last session, granting us the privilege of contracting for the space of two years for light, heat, power, etc. Light, heat, and power. The contract for lighting and for twenty horse-power was awarded the Redlands Electric Light and Power Company. The service has been efficient and satisfactory. The improved quality of light furnished, cleanliness, and freedom of danger by fire, have materially lightened the burden of caring for our buildings, added to our comfort, and banished from mind the apprehension of conflagration, always more or less attendant upon the use of illuminating gas.

The refrigerating and ice plant now under consideration, when installed, will be not only an economical arrangement, but will render us far more efficient service than we have been able to obtain by the use of ice alone. Ice and refrigeration. During the past two years our necessary expense for ice has been \$2,794 55, notwithstanding the observance of the strictest economy in its use. Under our present contract we have ample power, without incurring additional expense, for the running of the refrigerating apparatus; and the amount expended for ice during the past two years alone would more than cover the cost of putting in the necessary plant.

During the biennial term we have been honored with visits from the Governor, Secretary of State, State Board of Health, and many distinguished laymen and physicians of California. Distinguished visitors.

We also remember with pleasure the visit of Selden H. Talcott, M.D., and party, who, for the past twenty years, has been Superintendent of the Middletown State Homeopathic Hospital at Middletown, New York. Also visits from many distinguished physicians and philanthropists of other States and Territories.

Before closing, I would suggest to your Honorable body, that you present for consideration, at the next session of the Legislature, a modification of the present title of this institution. Amendment of title from Asylum to Hospital.

The term "Asylum" is a misnomer, as applied to our establishment, which is in no sense a place of refuge or retreat. Patients committed to our care present various aspects of disease, and receive such treatment and medication as may be deemed proper in their individualized cases. Physical and mental disability almost invariably go hand in hand. But both conditions are diseases; and as such demand scientific care. An institution devoted to this class of work should, therefore, be known as an "Hospital"—for such it is, and not the permanent abiding-place of unfortunates whom the community desires to isolate forever. In many of the older States of the East this nomination already has been adopted. In those localities where science and philanthropy have journeyed farthest along the lines of progress, and interest in public charities is most keenly alert, all institutions maintained at the expense of the people for the care and cure of the mentally afflicted have been universally christened "Hospitals."

Popular
prejudice
against
"Asy-
lums."

It is unnecessary to dwell upon the popular prejudices engendered by the objectionable name of "Asylum." Owing to those unfortunate methods prevalent in earlier times for the restraint and care of the insane, in the minds of the masses this term has become fixedly associated with the exercise of harshness, severity, cruelty, and violence; and it is beyond question that a patient, as well as the relatives and friends concerned, would be much more reconciled and hopeful, and consequently contribute a less disturbing or obstructive element to successful treatment, should the mental trouble bring about a consignment for proper treatment to a "Hospital," rather than a compulsory retirement for a dread and indefinite period to the imagined horrors of an "Asylum." And further, this same sentiment would happily operate to advantage by inducing the natural guardians and friends to place the insane under treatment at the earliest manifestations of their disease, instead of attempting to hide the true state of affairs from the outer world until the symptoms have become so marked and dangerous as to render further concealment impossible. It is admitted by the medical profession, as well by physicians in general practice, as the members connected with insane hospitals, that it is those cases where early treatment is given which yield most readily to curative efforts.

Therefore, gentlemen, I submit that the title of this institution be amended by striking out the word "Asylum," and in lieu thereof inserting the more accurate and euphonious name, "Hospital."

This report would be incomplete without a recognition of the services rendered by the officers and employés who have been connected with me in the administration of affairs for the past two years or more. Officers
and em-
ployés.

Dr. A. Stanley Dolan, my able assistant, has rendered valuable service, and has been untiring and persistent in his efforts in behalf of the patients. Assistant
Physician.

The one sad event of the period has been the untimely passing of Dr. Dolan's wife. She was a woman of rare qualities of mind and heart, and possessed in a remarkable degree those gracious gifts which endear her memory to all with whom she came in contact. She took a lively interest in the welfare of the institution, and generously made gratuitous contribution of her cultivated musical talents to all plans identified with the amusement of patients. Her presence here, as a bride and wife, came to us like a glint of April sunshine; and the bereavement of Dr. Dolan is shared by us in the taking from our midst of a charming, cultured, and warm-hearted gentlewoman.

The condition of the wards and patients is conclusive evidence of the efficiency and good judgment of those in charge of these most important departments of the institution. Wards and
Attend-
ants.

The exhaustive report of the Steward shows with what care, discretion, and ability the various departments under his supervision have been conducted. Steward.

In conclusion, I desire to express my sincere thanks and appreciation to this Honorable Body for the uniform courtesy it has always shown to me, and the valuable assistance rendered by its advice, guidance, and coöperation, which have been of inestimable advantage in the conduct of affairs; and which, I trust, in the future shall be as generously bestowed as in the past, to the end that our institution may continue to be a source of pride to the people of the State, and of pardonable gratification to ourselves.

Respectfully submitted.

M. B. CAMPBELL,
Medical Director.

TABLE No. 1.

Showing Movement of Population for the years 1894-95 and 1895-96, for the biennial period ending June 30, 1896, and since the opening of the Asylum.

Movement.	1894-95.			1895-96.			During Period.			Since Opening.		
	Men.	Women	Total	Men.	Women	Total	Men.	Women	Total	Men.	Women	Total
Number in asylum June 30, 1894	145	76	221									
Number admitted	163	80	243	188	81	269	351	161	512	541	261	802
Number discharged—												
Recovered	42	20	62	94	33	127	137	54	189	167	65	232
Improved	6	3	9	4	3	7	10	6	16	14	13	27
Unimproved	3	2	5	1	0	1	4	2	6	4	2	6
Not insane	1	0	1	1	0	1	2	0	2	2	0	2
Unreturned escapes	5	0	5	0	0	0	5	0	5	5	0	5
Number died	17	12	29	25	7	32	42	19	61	51	25	76
Number discharged, died, etc.	74	37	111	125	43	168	200	79	279	244	105	348
Number of patients remaining June 30, 1896										297	157	454

TABLE No. 2.

Showing the Number of Admissions, by counties, for the years 1894-95 and 1895-96, for the biennial period, and since the opening of the Asylum.

Counties.	1894-95.			1895-96.			During the Period.			Since Opening Asylum.		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Alameda										0	1	1
Fresno										0	1	1
Kern	1	0	1	0	0	0	1	0	1	3	1	4
Los Angeles	71	46	117	112	44	156	183	90	273	284	146	430
Orange	8	4	12	4	3	7	12	7	19	21	12	33
Riverside	7	5	12	16	4	20	23	9	32	27	15	42
Santa Barbara	2	1	3	5	5	10	7	6	13	15	9	24
San Bernardino	38	14	52	34	14	48	72	28	100	106	32	138
San Diego	26	8	34	9	8	17	35	16	51	54	32	86
San Francisco	1	0	1	0	0	0	1	0	1	3	0	3
San Joaquin	0	0	0	1	0	1	1	0	1	2	0	2
Ventura	9	2	11	7	3	10	16	5	21	26	12	38
Totals	163	80	243	188	81	269	351	161	512	541	261	802

TABLE No. 3.

Showing Classification of Ages of Patients admitted during the biennial period ending June 30, 1896, and since the opening of the Asylum.

Classification of Ages.	During the Period.			Since Opening Asylum.		
	Men	Women	Total	Men	Women	Total
Between 10 and 20 years	9	4	13	14	6	20
Between 20 and 30 years	97	41	138	149	69	218
Between 30 and 40 years	101	45	146	152	71	223
Between 40 and 50 years	49	31	80	93	49	142
Between 50 and 60 years	47	20	67	67	35	102
Between 60 and 70 years	21	9	30	32	18	50
Between 70 and 80 years	9	3	12	12	5	17
Between 80 and 90 years	2	0	2	2	0	2
Unascertained	16	8	24	20	8	28
Totals	351	161	512	541	261	802

TABLE No. 4.

Showing the Civil Condition of Patients admitted during the biennial period ending June 30, 1896, and since opening of the Asylum.

Civil Condition.	During the Period.			Since Opening Asylum.		
	Men	Women	Total	Men	Women	Total
Married	92	84	176	152	145	297
Single	213	54	267	339	83	422
Widowed	14	20	34	18	30	48
Unascertained	32	3	35	32	3	35
Totals	351	161	512	541	261	802

TABLE No. 5.

Showing the Occupation of Patients admitted during the biennial period ending June 30, 1896, and since the opening of the Asylum.

Occupation.	During the Period.			Since Opening Asylum.		
	Men	Women	Total	Men	Women	Total
Professional:						
Actors, architects, artists, civil engineers, clergy, dentists, lawyers, musicians, physicians, surveyors, etc.	21	0	21	27	6	32
Commercial:						
Agents, accountants, bookkeepers, clerks, manufacturers, merchants, salesmen, stenographers, etc.	33	2	35	53	6	59
Agricultural and Pastoral:						
Farmers, gardeners, beekeepers, dairymen, herdsman, etc.	40	1	41	92	2	94
Mechanical (out of doors):						
Blacksmiths, brickmasons, engineers, lumbermen, motormen, painters, peddlers, police, plumbers, stonecutters, etc.	37	0	37	56	0	56
Sedentary Vocations:						
Bakers, barbers, butchers, dressmakers, harnessmakers, innkeepers, machinists, paperhangers, printers, seamstresses, shoemakers, tailors, watchmakers, etc.	42	33	75	59	37	96
Exposed Vocations:						
Railroad employés, miners, seamen, soldiers, fishermen, alongshoremen	32	0	32	48	0	48
Domestic Service:						
Waiters, cooks, maids, servants, etc.	10	6	16	10	13	23
Educational and High Domestic:						
Teachers, nuns, housewives, housekeepers, students, nurses, etc.	2	92	94	3	149	152
Laborers	45	1	46	76	2	78
Gamblers, paupers, tramps, etc.	5	0	5	6	0	6
No occupation	15	26	41	42	47	89
Unascertained	69	0	69	69	0	69
Totals	351	161	512	541	261	802

TABLE No. 6.

Showing the Nativity of Patients admitted during the biennial period ending June 30, 1896.

UNITED STATES.

Nativity.	Men	Women	Total	Nativity.	Men	Women	Total
Alabama	1	0	1	Nebraska	2	1	3
Arkansas	1	0	1	New Jersey	4	0	4
California	28	17	45	New York	22	10	32
Colorado	2	1	3	Ohio	11	7	18
Connecticut	4	0	4	Oregon	2	0	2
Dakota	1	0	1	Pennsylvania	18	1	19
Georgia	2	1	3	Rhode Island	1	1	2
Illinois	8	3	11	South Carolina	2	1	3
Indiana	3	4	7	Tennessee	1	3	4
Iowa	6	4	10	Texas	2	1	3
Kansas	1	1	2	United States	43	17	60
Kentucky	1	1	2	Utah	0	0	0
Louisiana	3	0	3	Vermont	2	1	3
Maine	7	4	11	Virginia	0	2	2
Maryland	2	1	3	West Virginia	1	1	2
Massachusetts	3	2	5	Wisconsin	4	2	6
Michigan	5	4	9	Wyoming	1	2	3
Minnesota	5	4	9				
Missouri	6	6	12	Totals	205	103	308

FOREIGN COUNTRIES.

Arabia	1	0	1	Mexico	7	1	8
Austria	5	0	5	Montenegro	1	0	1
Bavaria	1	0	1	Portugal	0	1	1
Belgium	0	1	1	Russia	2	0	2
Bohemia	1	2	3	Scotland	2	0	2
Canada	6	6	12	Spain	0	1	1
China	4	1	5	Sweden	4	9	13
Denmark	2	1	3	Switzerland	2	1	3
England	20	3	23	Syria	1	0	1
France	10	4	14	West Indies	1	0	1
Germany	23	8	31				
Greece	1	0	1				
India	1	0	1	Unascertained	120	47	167
Ireland	19	7	26		26	11	37
Italy	6	1	7	Totals	146	58	204

TABLE No. 6—Continued.

RECAPITULATION.

Showing Nativity of Patients received during the biennial period ending June 30, 1896, and since the opening of the Asylum.

Nativity.	During Period.			Since Opening.		
	Men.....	Women.....	Total.....	Men.....	Women.....	Total.....
United States	205	103	308	316	167	483
Foreign countries	120	47	167	195	82	277
Unascertained	26	11	37	30	12	42
Totals	351	161	512	541	261	802

TABLE No. 7.

Showing Term of Residence in the State before Admission, of the patients admitted during the biennial period ending June 30, 1896.

Term of Residence.		Men.....	Women.....	Total.....
Residence in State before admission	{ Under thirty days	12	4	16
	{ Between one and two months	3	0	3
	{ Between two and six months	19	9	28
	{ Between six months and one year	27	15	42
	{ Over one year	250	123	373
Unascertained		40	10	50
Totals		351	161	512

TABLE No. 8.

Showing Supposed Causes of Insanity, as given in the commitments, of patients admitted during the biennial period ending June 30, 1896, and since the opening of the Asylum.

Supposed Causes.		During Period.			Since Opening.			
		Men	Women	Total	Men	Women	Total	
Disease	Zymotic	Alcoholism	41	6	47	55	6	61
		Anæmia	0	1	1	0	1	1
		Fevers, typhoid, etc.	3	1	4	13	7	20
		Meningitis—Cerebro spinal	2	1	3	2	2	4
		Syphilis	1	0	1	1	0	1
	Local	Arterio sclerosis	0	0	0	1	0	1
		Brain—abscess, congestion, inflammation, softening of	1	1	2	7	1	8
		Brain tumor	1	0	1	1	0	1
		Cerebral lesion	2	0	2	2	0	2
		Embolism	1	1	2	1	1	2
		Epilepsy	10	12	22	23	20	43
		La Grippe	1	2	3	3	2	5
		Paralysis (hemiplegia)	1	1	2	1	2	3
		Pneumonia	0	0	0	0	1	1
		Sexual derangements	1	11	12	2	18	20
		Spinal irritation	1	1	2	1	1	2
		Other diseases	1	4	5	2	10	12
	Develop- mental	Puerperal	0	21	21	0	24	24
		Senility	5	3	8	5	3	8
Congenital		1	1	2	1	1	2	
Casualties	Exposure	4	0	4	8	0	8	
	Injury—head	16	1	17	29	2	31	
	Injury—bodily	1	0	1	3	0	3	
	Sunstroke, overheat	5	0	5	12	1	13	
Mental	Business troubles, financial losses, etc.	17	6	23	23	7	30	
	Domestic infelicity	3	2	5	3	4	7	
	Fright	0	1	1	1	1	2	
	Grief, sorrow, remorse	3	6	9	14	21	35	
	Jealousy	0	1	1	0	1	1	
	Nostalgia	1	0	1	1	0	1	
	Overstudy	1	2	3	1	3	4	
	Over exertion	3	3	6	7	5	12	
	Poverty, want, etc.	1	1	2	11	12	23	
	Religion, religious excitement, etc.	12	4	16	16	11	27	
	Solitude	2	0	2	2	0	2	
	Spiritualism	2	2	4	2	2	4	
	Worry, anxiety, etc.	9	7	16	11	9	20	
Heredity		28	13	41	46	27	73	
Masturbation		31	9	40	39	9	48	
Not otherwise classified	Climacteric	0	6	6	0	11	11	
	Dissipation	13	1	14	13	1	14	
	Excessive smoking of cigarettes	2	0	2	2	0	2	
	Excessive venery	1	0	1	1	0	1	
	Morphinism, cocaineism	24	2	26	29	2	31	
Unascertained		98	27	125	163	62	225	
Totals		351	161	512	541	261	802	

TABLE No. 8—Continued.

RECAPITULATION.

Classification of Supposed Causes.	During Period.			Since Opening.			Percentage.
	Men.	Women.	Total.	Men.	Women.	Total.	
Disease.....	68	71	139	96	83	179	22.32
Casualties.....	26	1	27	52	3	55	06.86
Mental causes.....	29	22	51	61	54	115	14.34
Heredity.....	28	13	41	46	27	73	09.10
Masturbation.....	31	9	40	39	9	48	05.99
Not otherwise classified.....	71	18	89	84	23	107	13.33
Unascertained.....	98	27	125	163	62	225	28.06
Totals.....	351	161	512	541	261	802	100.00

TABLE No. 9.

Showing History of Heredity, as given in the commitments, of patients admitted during the biennial period ending June 30, 1896, and since the opening of the asylum, with percentages.

History of Heredity.	During Period.			Since Opening.			Percentage.
	Men.	Women.	Total.	Men.	Women.	Total.	
Father known to be insane.....	16	5	21	26	9	35	4.36
Mother known to be insane.....	9	9	18	18	13	31	3.88
Grandfather known to be insane.....	2	0	2	7	0	7	0.87
Grandmother known to be insane.....	1	1	2	6	1	7	0.87
Brother known to be insane.....	5	3	8	13	8	21	2.60
Sister known to be insane.....	6	1	7	10	2	12	1.50
Collateral kinship.....	18	19	37	37	29	66	8.23
Totals with hereditary history.....	57	38	95	117	62	179	22.31
No heredity assigned.....	294	123	417	424	199	623	77.69
Totals.....	351	161	512	541	261	802	100.00

TABLE No. 10.

Showing Forms of Insanity in those admitted during the biennial period ending June 30, 1896, and since the opening of the asylum.

Form.		During the Period.			Since Opening Asylum.		
		Men	Women	Total	Men	Women	Total
Mania	Acute	103	58	161	146	80	226
	Acute, delirious	7	5	12	11	7	18
	Chronic	16	15	31	48	36	84
	Epileptic	2	2	4	6	5	11
Melancholia	Acute	44	19	63	58	32	90
	Chronic	11	19	30	19	36	55
Dementia	Acute	1	0	1	1	0	1
	Alcoholic	27	2	29	32	2	34
	Chronic	7	12	19	34	19	53
	Epileptic	20	8	28	31	15	46
	Masturbatic	38	7	45	52	10	62
	Senilis	22	10	32	29	15	44
General paresis		25	2	27	45	2	47
Imbecility		0	0	0	1	0	1
Inebriety		28	2	30	28	2	30
Totals		351	161	512	541	261	802

TABLE No. 11.

Showing Form of Insanity, Cause of Death, Sex, and Age of Patients who died during the biennial period ending June 30, 1896.

Form of Insanity.		Cause of Death.	Sex.	Age.	
Mania.	Acute	Exhaustion.....	Woman.	42	
		Exhaustion.....	Woman.	52	
		Exhaustion.....	Woman.	65	
		Exhaustion.....	Man	49	
		Meningitis.....	Man	36	
	Acute Delirious.	Exhaustion.....	Woman.	22	
		Exhaustion.....	Man	43	
		Exhaustion.....	Man	54	
		Exhaustion.....	Man	32	
		Exhaustion.....	Man	58	
		Meningitis.....	Man	32	
		Meningitis.....	Man	28	
	Chronic	Exhaustion.....	Man	65	
		Strangulation (self-inflicted).....	Man	29	
Melancholia.	Acute	Chronic diarrhœa.....	Man	38	
		Erysipelas and meningitis.....	Man	42	
		Phthisis pulmonalis.....	Man	36	
		Exhaustion.....	Woman.	53	
	Chronic	Exhaustion.....	Man	25	
		Exhaustion.....	Woman.	55	
		Exhaustion.....	Woman.	30	
		Phthisis pulmonalis.....	Woman.	31	
	Dementia	Chronic	Abscess of cerebellum.....	Woman.	37
			Brain tumor.....	Man	50
			Phthisis pulmonalis.....	Man	36
			Phthisis pulmonalis.....	Man	20
			Syphilis.....	Man	30
			Tumor of cerebellum.....	Woman.	53
Epileptic		Convulsions.....	Man	43	
		Convulsions.....	Man	49	
		Convulsions.....	Man	42	
		Convulsions.....	Woman.	36	
		Meningitis.....	Man	32	
Inebriety		Masturbatic	Phthisis pulmonalis.....	Woman.	24
			Suppurative bronchitis.....	Man	30
		Senilis	Abscess of brain.....	Man	62
	Apoplexy.....		Man	83	
	Apoplexy.....		Man	65	
	Cirrhosis of liver.....		Woman.	54	
	Erysipelas and meningitis.....		Woman.	65	
	Exhaustion.....		Woman.	77	
	Exhaustion.....		Woman.	65	
	Exhaustion.....		Woman.	65	
Phlegmonous erysipelas.....	Man	78			

TABLE No. 11—Continued.

Form of Insanity.	Cause of Death.	Sex.	Age.
General Paresis.....	Cirrhosis of liver	Man	48
	Cirrhosis of liver	Man	47
	Convulsions	Man	50
	Convulsions	Man	59
	Convulsions	Man	34
	Exhaustion	Man	54
	Exhaustion	Man	54
	Exhaustion	Man	39
	Exhaustion	Man	44
	Exhaustion	Man	52
	Exhaustion	Man	50
	Exhaustion	Man	47
	Exhaustion	Man	48
	Exhaustion	Man	44
	Exhaustion	Woman	60
	Exhaustion	Woman	47

RECAPITULATION.

Form of Insanity.	Men	Women	Total
Mania, acute	2	3	5
Mania, acute, delirious	6	1	7
Mania, chronic	2	0	2
Melancholia, acute	3	1	4
Melancholia, chronic	0	3	3
Dementia, chronic	5	2	7
Dementia, epileptic	4	2	6
Dementia, masturbatic	1	0	1
Dementia, senilis	4	5	9
General paresis	14	2	16
Inebriecy	1	0	1
Totals	42	19	61

Average age at death, 47 years.

TABLE No. 12.

Showing Classified Ages of Patients who Died during the biennial period ending June 30, 1896.

Classification.	Men	Women	Total
Between 20 and 30 years of age.....	4	2	6
Between 30 and 40 years of age.....	12	4	16
Between 40 and 50 years of age.....	12	2	14
Between 50 and 60 years of age.....	9	5	14
Between 60 and 70 years of age.....	3	5	8
Between 70 and 80 years of age.....	1	1	2
Between 80 and 90 years of age.....	1	0	1
Totals	42	19	61

TABLE No. 13.

Showing Time under Treatment, reckoning from date of admission to date of death, of patients who died during the biennial period ending June 30, 1896.

Time Under Treatment.	Number of Deaths.	Percentage to Total Number.
Less than 10 days.....	9	14 $\frac{2}{3}$ %
Between 10 and 30 days.....	9	14 $\frac{2}{3}$ %
Between 30 and 60 days.....	3	5
Between 60 and 90 days.....	3	5
Between 3 and 6 months.....	4	6 $\frac{1}{2}$ %
Over 6 months.....	33	54 $\frac{1}{3}$ %
Totals	61	100%

RECAPITULATION.

Patients under treatment less than 6 months.....	45 $\frac{5}{8}$ %
Patients under treatment less than 3 months.....	39 $\frac{1}{2}$ %
Patients under treatment less than 1 month.....	29 $\frac{1}{3}$ %
Patients under treatment less than 10 days.....	14 $\frac{2}{3}$ %

TABLE No. 14.

Showing, by months, the Employment of Patients in Useful Occupations from August 1, 1893, the opening of the Asylum, to June 30, 1896, the end of the biennial period, together with percentages.

	MEN.						WOMEN.				Total Number Employ'd.	Average Population.	Percentage Employed.
	Totals.	Wards, Rooms, Miscellaneous.	Farm, Lawn, Garden, Outdoors.	Dairy, Stable, Pigsty, etc.	Laundry, Engine-room, Stewards.	Kitchen, Bakery, Dining-room.	Sewing-room.	Laundry.	Wards, Pantries, Miscellaneous.	Totals.			
<i>Previous Period.</i>													
1893—August	44	15	18	4	2	5	3	3	2	8	52	109	48
September	41	12	18	2	3	6	3	3	9	50	122	41	
October	45	15	19	2	3	6	7	2	5	14	59	133	45
November	36	18	4	2	4	8	5	4	4	13	49	145	34
December	47	14	17	4	4	8	4	6	6	16	63	162	40
1894—January	54	15	17	8	3	11	5	3	6	14	68	180	38
February	51	24	7	4	3	13	4	3	5	12	63	192	32
March	63	21	18	4	6	14	5	4	4	13	76	203	32
April	69	20	21	6	7	15	4	4	4	12	81	210	38
May	63	20	12	6	8	17	6	5	4	15	78	219	31
June	70	25	14	5	9	17	7	5	4	16	86	223	38
<i>This Period.</i>													
July	80	25	19	12	7	17	6	4	5	15	95	226	41
August	63	23	12	4	9	15	3	4	2	9	72	243	29
September	50	25	2	5	3	15	4	5	4	13	63	255	25
October	61	25	7	6	8	15	4	5	3	12	73	266	30
November	57	18	10	9	4	16	5	5	4	14	71	279	25
December	70	27	14	8	7	14	4	5	3	12	82	290	38
1895—January	68	25	10	12	7	14	4	5	3	12	80	297	27
February	82	27	14	17	10	16	3	4	4	11	93	305	30
March	72	20	12	4	20	14	7	5	7	19	91	323	28
April	81	29	17	5	12	18	7	5	14	26	107	322	33
May	93	40	18	4	14	17	5	5	18	28	121	339	33
June	98	47	20	2	10	19	6	8	21	35	133	355	37
July	97	43	21	3	11	17	7	8	17	42	139	365	38
August	107	47	25	2	11	22	8	10	20	38	145	376	39
September	98	41	23	4	10	22	7	9	20	36	134	384	35
October	92	43	15	4	9	21	7	9	20	36	128	396	32
November	96	45	16	3	10	22	5	8	20	33	129	407	31
December	92	37	13	6	12	24	5	9	20	34	126	417	30
1896—January	98	46	16	4	10	22	5	8	20	33	131	421	31
February	90	31	26	6	12	25	6	8	24	38	128	426	30
March	100	43	19	5	10	23	8	6	23	37	137	430	32
April	106	49	17	4	11	25	6	7	23	36	142	442	32
May	111	47	27	5	9	23	6	8	21	35	146	447	33
June	114	50	26	4	11	23	8	7	21	36	150	461	32
Averages since opening	77	30	16	6	8	17	6	6	12	24	101	296	34

TABLE No. 15.

Showing Percentages Deduced from Statistical Tables covering the medical records of the Asylum for the years 1893-94, 1894-95, and 1895-96, for the biennial period ending June 30, 1896, and since the opening of the Asylum. (The year 1893-94 embraces but 11 months, and is covered by last biennial report.)

		1893-94.		1894-95.		1895-96.		During the Period.	Since the Opening.
		No.	%	No.	%	No.	%	Av'ge %	Av'ge %
Movements of patients -----	Admissions	290	36.15	243	30.30	269	33.54	63.84	100.00
	Recoveries*	43	14.83	62	25.51	127	47.22	36.91	29.19
	Deaths†	15	5.17	29	6.25	32	5.14	5.69	5.52
	Discharges	69	23.79	111	45.68	168	62.45	54.07	43.97
	Alameda	1	.34						.11
	Fresno	1	.34						.11
	Kern	3	1.03	1	.41			.20	.48
Counties whence committed -----	Los Angeles	157	54.14	117	48.10	156	57.99	53.04	53.41
	Orange	14	4.82	12	4.94	7	2.60	3.76	4.12
	Riverside	10	3.45	12	4.94	20	7.43	6.18	5.27
	Santa Barbara	11	3.79	3	1.23	10	3.71	2.87	2.91
	San Bernardino	38	13.10	52	21.39	48	17.84	19.11	17.44
	San Diego	35	12.07	34	13.99	17	6.32	10.15	10.79
	San Francisco	2	.69	1	.34			.18	.34
	San Joaquin	1	.34			1	.37	.18	.24
	Ventura	17	5.86	11	4.52	10	3.71	4.11	4.70
	Disease								22.32
Causes of insanity (Classified) -----	Casualties								6.86
	Mental origin								14.34
	Heredity								9.10
	Masturbation								5.99
	Unclassified								13.33
Hereditary, history of -----	Unascertained								28.06
	Parental								8.23
	Ante-parental								1.74
	Fraternal								4.11
	Collateral								8.23
Residence in State before admission -----	Total								22.31
	Under one month							3.12	
	Under two months							3.71	
	Under six months							9.18	
	Under one year							17.38	
	Unascertained							9.76	
	United States of America, including various States							60.15	60.22
Nativity -----	Foreign countries							32.61	34.54
	California (percentage to total admissions)							8.81	8.11
	California (percentage to native Americans)							14.64	5.61
	Unascertained							7.22	5.24
								31.45	23.17
Forms of insanity -----	Mania							2.34	2.24
	Acute, delirious							6.05	10.47
	Chronic							.78	1.37
	Epileptic							12.30	11.22
	Melancholia							5.86	6.86
	Acute							.20	.12
	Alcoholic							5.66	4.28
	Chronic							3.75	6.60
	Dementia							5.47	5.73
	Epileptic							8.79	7.73
	Masturbatic							6.25	5.48
	Senilis							5.27	5.86
	General paresis								.12
	Imbecility							5.85	3.74
	Inebriety								

TABLE No. 15—Continued.

		During the Period.	Since the Opening.
		Average %	Average %
Occupations (classified) -----	Professional		3.99
	Commercial		7.35
	Agricultural, pastoral		11.72
	Mechanical (outdoor)		6.98
	Sedentary		11.97
	Exposed		5.98
	Domestic and higher educational		18.95
	Lower domestic, menial		2.87
	Laborers		9.73
	Gamblers, paupers, etc. ....		.75
	None		11.10
	Unascertained		8.60
Civil condition (by sexes) -----	Married: Men—Percentage to male admissions		28.10
	Women—Percentage to female admis'ns.		55.55
	Unmarried: Men—Percentage to male admissions		62.66
	Women—Percentage to female adm's.		31.80
	Widowed: Men—Percentage to male admissions		3.33
	Women—Percentage to female adm's.		11.49
	Unascertained: Men—Percentage to male adm's.		5.91
	Women—Percentage to female adm's.		1.14

* Percentage to admissions.

† Percentage to number treated.

REPORT OF STEWARD.

TABLE No. 16.

Showing Articles Consumed, and Other Expenses, for the forty-sixth fiscal year, ending June 30, 1895.

Articles.		Quantity.	Amount.	
Tea		794 lbs.		\$182 34
Flour	Wheat	67,820 lbs.	\$1,340 75	
	Graham	2,225 lbs.	46 75	
				1,387 50
Meat	Beef	45,395 lbs.	\$2,376 56	
	Mutton	5,411 lbs.	334 63	
	Veal	5,748 $\frac{1}{2}$ lbs.	454 67	
	Ham and bacon	2,250 $\frac{3}{4}$ lbs.	316 39	
	Salt pork and sausage	842 $\frac{1}{2}$ lbs.	94 03	
				3,576 28
Sugar		13,437 lbs.		812 76
Syrup		711 gals.		186 60
Potatoes		56,139 lbs.		695 77
Butter		7,589 lbs.		1,376 71
Coffee		3,401 lbs.		755 47
Lard		1,310 lbs.		141 72
Fish		3,919 lbs.		30 65
Poultry and eggs	Poultry		\$22 83	
	Eggs	3,129 $\frac{1}{2}$ doz.	810 73	
				833 56
Beans		6,757 lbs.		210 03
Rice and cracked wheat	Rice	1,000 lbs.	\$45 00	
	Cracked wheat	1,056 lbs.	42 75	
				87 75
Corn and oat meal	Cornmeal	1,485 lbs.	\$29 80	
	Oat meal	7,200 lbs.	260 00	
				289 80
Fruit	Dried	22,210 $\frac{3}{4}$ lbs.	\$1,350 73	
	Fresh	1,029 lbs.	37 66	
	Canned	128 $\frac{7}{12}$ doz.	185 85	
				1,574 24
Vegetables	Canned	388 $\frac{1}{12}$ doz.		389 95
Salt		4,440 lbs.		45 17
Vinegar		271 $\frac{1}{2}$ gals.		45 56
Miscellaneous groceries	Baking powder	128 lbs.	\$46 40	
	Baking soda	93 $\frac{1}{2}$ lbs.	7 89	
	Cinnamon	56 $\frac{1}{4}$ lbs.	11 58	
	Citron	15 lbs.	3 35	
	Curry powder	1 bottle.	20	
	Catsup	12 bottles.	3 00	
	Chocolate	31 lbs.	11 35	
	Cornstarch	68 lbs.	4 40	
	Cloves	6 $\frac{1}{2}$ lbs.	2 10	
	Cocoa	15 lbs.	7 55	
	Cocoanut	21 lbs.	8 40	
	Cheese	992 $\frac{1}{2}$ lbs.	150 90	
	Crackers	1,122 lbs.	66 92	
	Clams	8 cans.	1 25	
	Germea	176 lbs.	10 75	
	Ginger	6 $\frac{1}{2}$ lbs.	2 00	
	Hominy	435 lbs.	18 70	

TABLE No. 16—Continued.

Articles.		Quantity.	Amount.	
Miscellaneous groceries—Continued.				
	Jelly	50 cans.	\$8 06	
	Lobsters	1 can.	20	
	Mace	9 lbs.	7 70	
	Nutmegs	1 $\frac{1}{4}$ lbs.	1 90	
	Mustard	50 lbs.	8 65	
	Mushrooms	20 cans.	3 60	
	Macaroni	194 lbs.	15 50	
	Oysters	61 cans.	13 68	
	Olive oil	36 bottles.	32 75	
	Pepper	270 lbs.	42 50	
	Pickles	48 $\frac{1}{2}$ gals.	13 30	
	Sardines	13 cans.	2 08	
	Salmon	18 cans.	2 25	
	Shrimps	67 cans.	15 35	
	Sage	7 $\frac{1}{2}$ lbs.	1 45	
	Extracts	63 bottles.	29 35	
	Vermicelli	20 lbs.	1 40	
	Worcestershire sauce	14 bottles.	10 79	
	Bay leaves	3 $\frac{1}{2}$ lbs.	1 40	
	Honey	485 lbs.	28 83	
	Hops	24 $\frac{1}{2}$ lbs.	7 50	
	Allspice	14 lbs.	2 50	
	Gelatine	34 lbs.	4 75	
	Pearl barley	162 $\frac{1}{2}$ lbs.	9 80	
	Sage	5 lbs.	2 65	
	Olives	17 $\frac{1}{2}$ gals.	14 65	
	Pepper sauce	3 bottles.	92	
	Garlic	6 lbs.	20	
	Tapioca	45 lbs.	2 23	
	Chili sauce	2 bottles.	50	
	Chowchow	5 bottles.	2 20	
	Mincemeat	60 pkgs.	7 70	
	Lemon peel	2 lbs.	50	
	Maple sugar	24 cans.	4 25	
	Condensed milk	96 cans.	16 50	
	Sauerkraut	34 lbs.	6 80	
	Caper sauce	6 bottles.	1 50	
	Horseradish	2 bottles.	60	
	Ox tails		10	
	Cream tartar	1 $\frac{1}{2}$ lbs.	75	
	Rose extract	2 bottles.	50	
	Wafers	3 lbs.	50	
	Buckwheat	10 lbs.	60	
	Candles	2 $\frac{3}{4}$ lbs.	50	
	Extract beef		40	
				\$686 60
Soap				
	Kitchen	4,665 lbs.	\$204 10	
	Bath	1,171 lbs.	61 48	
	Toilet	518 $\frac{1}{2}$ lbs.	37 11	
	Shaving	10 lbs.	3 86	
	Bath brick	52 lbs.	3 01	
	Sapolio	508 lbs.	36 38	
	Tallow (soap)	1,571 lbs.	64 69	
				410 63
Drugs				
				434 83
Liquors				
				219 73
Alcohol				
				135 20
Dry goods				
	Mosquito bar	4 pieces.	\$1 80	
	Muslin, Lonsdale	160 $\frac{1}{2}$ yds.	13 62	
	Pequot sheeting	4,673 yds.	570 91	
	Table linen	104 $\frac{1}{2}$ yds.	49 05	
	Brown muslin	2,206 yds.	143 24	
	Amoskeag checks	176 $\frac{1}{2}$ yds.	14 12	
	Corset jeans	31 $\frac{1}{4}$ yds.	2 06	
	Amoskeag gings	429 $\frac{1}{4}$ yds.	27 91	
	Calico	1,069 $\frac{1}{2}$ yds.	86 63	
	Ticking	871 $\frac{1}{4}$ yds.	91 35	
	Crash	1,410 yds.	103 25	
	Flannel	65 $\frac{1}{2}$ yds.	11 79	

TABLE No. 16—Continued.

Articles.		Quantity.	Amount.	
Dry goods—Continued.				
Oilcloth	-----	211 $\frac{1}{2}$ yds.	\$44 57	
Buttons	-----		18 29	
Huck towels	-----	31 $\frac{3}{4}$ doz.	24 63	
Handkerchiefs	-----	46 $\frac{1}{2}$ doz.	23 71	
Shoe laces	-----	41 doz.	3 80	
Safety pins	-----	24 boxes.	20 40	
Pins, common	-----	16 pkgs.	7 48	
Hairpins	-----	11 pkgs.	4 78	
Napkins	-----	8 doz.	15 60	
Combs	-----	5 $\frac{3}{4}$ doz.	16 05	
Machine needles	-----		1 50	
Canvas	-----	290 yds.	83 65	
Cheese cloth	-----	18 yds.	95	
Drilling	-----	76 $\frac{1}{2}$ yds.	5 93	
Canton flannel	-----	126 yds.	9 13	
Cambric	-----	45 yds.	2 25	
Thimbles	-----		1 65	
Thread	-----	145 doz.	60 71	
Needles	-----	100 papers.	5 30	
Cotton tape	-----	40 doz.	10 00	
Wadding	-----		70	
Hooks and eyes	-----	24 papers.	2 00	
Corset laces	-----	1 gross.	1 75	
Darning cotton	-----	5 boxes.	6 56	
Tape measures	-----		50	
Tarleton	-----	16 yds.	2 40	
Hat pins	-----	2 doz.	50	
Carpet fringe	-----	28 $\frac{1}{2}$ yds.	7 08	
Carpet binding	-----	12 yds.	1 50	
Butcher's linen	-----	12 yds.	3 60	
Blue denims	-----	104 yds.	9 60	
				\$1,514 30
Clothing and hats.				
Ladies' hose	-----	11 $\frac{1}{2}$ doz.	\$18 54	
Ladies' vests	-----	18 $\frac{1}{2}$ doz.	67 13	
Suspenders	-----	20 $\frac{1}{2}$ doz.	28 43	
Coats	-----	24 $\frac{1}{2}$ doz.	268 17	
Drawers	-----	22 $\frac{1}{2}$ doz.	77 20	
Men's vests	-----	10 $\frac{1}{2}$ doz.	55 37	
Overalls	-----	10 $\frac{1}{2}$ doz.	58 12	
Pants	-----	17 $\frac{1}{2}$ doz.	156 50	
Canton flannel shirts	-----	19 doz.	94 67	
Overshirts	-----	2 $\frac{1}{2}$ doz.	16 25	
Hickory shirts	-----	35 doz.	166 90	
Socks	-----	86 $\frac{1}{2}$ doz.	63 92	
Wool hats	-----	9 $\frac{1}{2}$ doz.	54 86	
Straw hats	-----	14 $\frac{1}{2}$ doz.	45 75	
Collars and ties	-----		75	
Gloves	-----	1 pair	1 25	
				1,173 81
Shoes				
Brogans	-----	14 $\frac{1}{2}$ doz.	\$273 92	
Ladies' kid bals	-----	2 $\frac{1}{2}$ doz.	23 00	
Slippers	-----	34 $\frac{1}{2}$ doz.	258 11	
Rubber boots	-----	1 pair.	3 00	
Repairs, shoes	-----		2 25	
				560 28
Blankets	-----	19 pairs.		37 20
Furniture and crockery				
Dinner plates	-----	7 $\frac{5}{12}$ doz.	\$9 73	
Sauce dishes	-----	2 doz.	1 80	
Mush bowls	-----	6 $\frac{1}{2}$ doz.	7 09	
Nappies	-----	4 $\frac{1}{2}$ doz.	13 29	
Cups and saucers	-----	11 $\frac{3}{4}$ doz.	17 78	
Syrup jugs	-----	1 $\frac{1}{2}$ doz.	12 40	
Tumblers	-----	9 $\frac{1}{2}$ doz.	5 22	
Salts and peppers	-----	4 $\frac{1}{2}$ doz.	6 32	
Pie plates	-----	5 $\frac{1}{2}$ doz.	5 44	
Soup plates	-----	11 $\frac{1}{2}$ doz.	13 27	
Platters	-----	2 $\frac{1}{2}$ doz.	13 99	
Shaving mugs	-----	$\frac{1}{4}$ doz.	27	

TABLE No. 16—Continued.

Articles.	Quantity.	Amount.	
Furniture and crockery.—Continued.			
Individual butter.....	11 ³ / ₄ doz.	\$3 45	
Water pitchers, large.....	2 ¹ / ₆ doz.	19 96	
Water pitchers, small.....	1 ⁵ / ₆ doz.	7 97	
Milk pitchers.....	1 ¹ / ₆ doz.	3 10	
Demijohns.....	1 ¹ / ₂ doz.	3 75	
Washbowls and pitchers.....	1 ¹ / ₂ doz.	65	
Lamps.....	1 ¹ / ₄ doz.	1 50	
Baskets.....	2 doz.	27 25	
Curtains.....	1 ¹ / ₂ doz.	8 67	
Lamp chimneys.....	3 ⁵ / ₁₂ doz.	5 81	
Chamber sets.....	1 set.	4 25	
Bedpans.....	1 ¹ / ₄ doz.	3 70	
Celery glasses.....	1 ¹ / ₂ doz.	1 00	
Butter dishes.....	1 ¹ / ₂ doz.	1 70	
Water jars.....	1 ¹ / ₂ doz.	70	
Ollas.....	3	4 25	
Earthen chambers.....	1 ¹ / ₂ doz.	40	
Comb dresser.....	1	17 00	
Stand.....	1	3 00	
Stool.....	1	3 00	
Chair bottoms.....	24	4 25	
Cane (chair bottom).....		2 50	
Table legs.....	52	6 50	
Faucets.....	1	10	
Doormats.....	2	2 50	
			\$243 81
Hardware and tin-ware.....			
Milkcans.....	18	\$23 55	
Oilcans.....	2	40	
Lanterns.....	7	6 26	
Pails.....	27	14 14	
Dishpans.....	12	13 40	
Saucepans.....	5	2 50	
Dustpans.....	25	3 18	
Coffeepots.....	11	15 52	
Dippers.....	6	1 60	
Tin cups.....	126	7 90	
Cuspidors.....	33	8 58	
Ladles.....	9	1 05	
Tin chambers.....	91	37 25	
Tin plates.....	114	5 94	
Can-openers.....	2	28	
Washboards.....	10	3 20	
Washbasins.....	16	3 50	
Granite pans.....	71	26 50	
Shovels.....	12	13 37	
Nails.....	455 lbs.	14 10	
Bread pans.....	24	8 40	
Hoes.....	13	6 22	
Picks.....	3	3 75	
Knives and forks.....	60	6 90	
Butcher knives.....	6	5 60	
Hatchets.....	2	1 33	
Egg-beaters.....	9	4 00	
Teaspoons.....	12	25	
Stoves.....	5	72 85	
Strainers.....	3	26	
Key rings.....	5	40	
Scissors.....	2	2 10	
Key chains.....	26	5 35	
Corkscrews.....	1	15	
Tacks.....	74 papers.	3 79	
Tees.....	1	15	
Clamps.....	1	2 00	
Rubber.....	1 lb.	35	
Plowshares.....	42	28 25	
Plowslips.....	24	4 80	
Polishing irons.....	11	9 79	
Rakes.....	3	2 00	
Hooks.....	468	9 15	

TABLE No. 16—Continued.

Articles.	Quantity.	Amount.
Hardware and tinware—Continued.		
Snaps	6	\$0 60
Foot-lever	1	4 00
Handles	23	6 40
Plugs	22	3 60
Screws	44 gross.	16 30
Axles	2	4 03
Gaslighters	7	6 25
Chisels	1	65
Handcart	1	12 00
Bougies	10	10 00
Ironholders, felt	12	2 00
Hasps and staples	39	5 90
Bits	8	2 45
Drawer pulls	126	10 20
Hinges	116	12 05
Mouse traps	6	1 40
Rope	16½ lbs.	2 06
Cupboard catches	48	7 00
Hayknives	1	1 25
Garden sprinklers	8	6 50
Sewer pipe	16 joints.	9 41
Nuts	16½ lbs.	3 05
Bolts	208	4 68
Castings	34	13 70
Screen wire	659 feet.	18 92
Trays	12	1 98
Key rings	12	90
Door knobs	3	1 10
Locks	73	24 85
Putty knives	1	25
Doorsprings	2	70
Valves	10	13 00
Bushings	16	1 45
Keys	4½ doz.	6 30
Sandpaper	32 sheets.	55
Faucets	2	75
Funnels	8	85
Hosemenders	22	1 25
Bellows	2	3 00
Lead pipe	3½ lbs.	35
Castors	10	2 25
Belting	25 feet.	2 75
Plow wheels	1	1 50
Repairs, kitchen utensils		9 05
Orange-clippers	2	1 00
Toasters	2	25
Brass	6 lbs.	50
Saws	15	3 30
Frypans	3	1 90
Cake turners	2	25
Cultivator teeth	53	8 26
Block scraper	1	75
Flour sieve	1	19
Potato mashers	2	94
Kitchen knives	2	20
Bells	2	46
Tin	49 sheets.	9 05
Expansion joint	1	12 50
Steel figures	1 set.	1 50
Emery cloth	1 quire.	1 25
Ice picks	2	30
Rubber hose	200 feet.	27 00
Tracing wheel	1	25
Hay forks	6	5 25
Lemon squeezers	2	60
Sheet brass	1 lb.	25
Picket chain	30 feet.	1 25
Ten-gallon oilcan	1	3 75
Skimmer	1	05
Brace	1	3 25

TABLE No. 16—Continued.

Articles.	Quantity.	Amount.
Hardware and tinware—Continued.		
Toilet fixtures.....	9	\$1 80
Tack hammers.....	2	70
Wire.....	696 lbs.	30 04
Staples.....	13 lbs.	1 05
Iron.....	25 lbs.	75
Shears.....	1 pair.	75
Hog rings.....	2 bxs.	50
Bracket.....	1	50
Curtain rings.....	3	10
Rivets.....	8 bxs.	1 60
Clevises.....	5	1 50
Glass-cutter.....	1	25
Solder.....	24 lbs.	4 85
Stove-pipe.....	12 joints.	2 85
Singletrees.....	2	70
Planes.....	2	7 90
Kettles.....	3	5 90
Glass gauges.....	6	1 80
Corn knives.....	4	1 50
Union.....	1	70
Reducers.....	4	60
Hitching rings.....	3	60
Soldering irons.....	1	1 70
Towel-rollers.....	12	5 40
Harness punch.....	1	75
Rings.....	12 doz.	4 20
Meat cutters.....	2	24 50
Sheeptoe cutter.....	1	1 00
Rubber valves.....	2 doz.	2 00
Rubber packing.....	23 lbs.	1 40
Repairs to pulleys.....		3 50
Pleat raiser.....	1	15
Eyelet raiser.....	1	40
Petcocks.....	3	1 50
Hedge shears.....	1	2 25
Lamp-burners.....	3	60
Spokeshave.....	1	1 00
Oilstones.....	1	75
Awls.....	4	10
Tin and iron spoons.....	214	
Carpets and matting.....		\$821 28
Grain and feed.....		12 42
Barley.....	27,431 lbs.	7 35
Bran.....	25,670 lbs.	
Oilcake.....	113 lbs.	\$356 97
Wheat.....	147 lbs.	295 80
		4 24
		1 98
Garden seed.....		658 99
Lumber, laths, and shakes.....		204 78
Building material.....		850 64
Lime and cement.....		\$28 50
Vitrified pipe.....		6 60
Brick and mason work.....		66 25
Brooms and brushes.....		101 35
Books and stationery.....		222 11
Light.....		120 12
Gasoline.....	6,592 gals.	\$1,352 10
Coal oil.....	385 gals.	49 90
China nut oil.....	35 gals.	23 50
Paint, oil, and glass.....		1,425 50
Paint.....		\$69 89
Glass.....		36 92
Linseed oil.....		34 29
Lard oil.....		46 00
Turpentine.....		25 20
Fuel.....		212 30
Crude oil.....	1,657 bbls.	\$2,990 12
Wood.....	43 eds.	249 00
Coal.....	187 $\frac{8}{10}$ tons.	1,330 88
		4,570 00

TABLE No. 16—Continued.

Articles.		Quantity.	Amount.	
Bedding	Pillows	2	\$5 25	
	Rubber sheets	121	137 74	
	Bedspread	1	2 25	
	Moss (mattresses)	213 lbs.	42 60	
				\$187 84
Iron pipe and castings				101 85
Payroll				33,861 98
Trustees' salary				990 70
Printing and advertising				91 25
Freight and express				289 90
Postage stamps				160 00
Ice		218,292 lbs.		1,390 69
Telegraphing and telephoning				228 92
Harness and repairs				53 95
Horse blankets		2		2 75
Whips		4		4 50
Blacksmithing				144 95
Horseshoeing				94 00
Miscellaneous	Applicators	6	\$0 50	
	Apron, rubber	1	2 75	
	Absorbent cotton	5	2 00	
	Button molds	2	20	
	Bandages		10 35	
	Boiler inspection		150 00	
	Back pad	1	40	
	Brick (fire)	300	24 50	
	Bluing	3 lbs.	15 00	
	Bitter almonds		50	
	Bluestone	8 lbs.	50	
	Bougies	3	4 50	
	Borax	20 lbs.	2 50	
	Catheters	18	3 75	
	Catheter, horse	1	3 12	
	Condition powders		45	
	Chamois skins	2	1 50	
	Chessmen	1 set.	90	
	Candles	12	1 25	
	Cushions (air)	6	15 75	
	Cut-off	1	75	
	Corks		1 05	
	Cement	1 can.	20	
	Clay (fire)		1 57	
	Clothespins	1 box.	90	
	Capsules	4 boxes.	80	
	Dusters, feather	2	95	
	Dilators	2	2 75	
	Exchange		29 82	
	Felt		5 50	
	Feeding tubes	12	12 00	
	Glue	25 lbs.	4 50	
	Glass tubes	5	45	
	Gloves, rubber	1 pair.	1 50	
	Handcuffs	2 pair.	9 00	
	Hypo. needles	6	3 00	
	Hoof remedy	1 bottle.	1 75	
	Insect powder	51 lbs.	5 75	
	Iron holders	12	1 50	
	Iodoform dusters	6	3 00	
	Keg (vessel)	1	1 00	
	Laundry nets	5	6 00	
	Liniment	2 bottles.	1 90	
	Leather	6½ lbs.	4 50	
	Ligatures (ant.)	6	7 50	
	Mason and cement work		17 75	
	Oilcake	100 lbs.	3 88	
	Oil, sewing-machine	12 bottles.	1 50	
	Oil, linseed	1 gallon.	1 00	
	Powder wrappers	1,000	18 00	
	Paper	144 lbs.	8 42	
	Playing cards	24 packs.	2 40	
	Pipes, tobacco	5 dozen.	3 10	

TABLE No. 16—Continued.

Articles.	Quantity.	Amount.	
Miscellaneous—Continued.			
Plaster Paris.....		\$0 10	
Paris green.....	2 lbs.	90	
Putty.....	50 lbs.	2 50	
Plasters, adhesive.....	5 yards.	1 50	
Packing.....	18½ lbs.	8 35	
Poisoned wheat.....	4 cans.	2 00	
Pulleys.....	12	2 50	
Rubber stamps.....	2	50	
Rough on Rats.....	1 pkg.	25	
Repairs to carwheel.....		2 50	
Supporters.....		75	
Straight jacket.....	1	3 50	
Syringes.....	13	11 87	
Sandpaper.....	18 qrs.	3 60	
Sal ammoniac.....	5	1 25	
Speculum.....	1	4 00	
Silver polish.....	10 boxes.	2 55	
San metto.....	3	2 50	
Shears (surgical).....	2 pair.	5 50	
Spectacles.....		2 10	
Shoes, repairs.....		1 25	
Subscription to Delineator.....		1 00	
Twine and cord.....	70 lbs.	8 85	
Thermometers.....	9	7 50	
Tiles (surgical).....	12	1 25	
Tar (pine).....	2	40	
Tablets.....		2 75	
Veils.....	6 doz.	70	
Waste (cotton).....	47 lbs.	6 11	
Water bags.....	6	5 10	
			\$499 69
Sal soda.....	3,457 lbs.	\$56 63	
Lye.....	18 lbs.	1 80	
Fly paper.....	19 boxes.	10 45	
Toothpicks.....	14 boxes.	66	
Axle grease.....	8 boxes.	1 26	
Toilet paper.....	1,863 pkgs.	153 52	
Blacking.....	55 boxes.	3 72	
Thermometers.....	32	23 45	
Chloride of lime.....	940 lbs.	58 94	
Ammonia.....	53 gals.	20 75	
Surgical instruments.....		254 90	
Playing cards.....	1 doz.	1 00	
Matches.....	27½ gross.	19 95	
Paraffine.....	88 lbs.	11 25	
Lampwicks.....		1 79	
Sulphur candles.....	22	2 25	
Gas tapers.....	41 boxes.	5 72	
Starch.....	198 lbs.	14 85	
Rough on Rats.....	4 boxes.	50	
Fans.....	36	1 50	
Maintenance Med. Director.....		1,500 00	
Razor strops, etc.....		9 95	
Water assessment.....		180 00	
Traveling expenses.....		138 00	
Beeswax.....	25 lbs.	7 15	
Caustic soda.....	470 lbs.	45 20	
Rope.....	80½ lbs.	13 25	
Acids.....		8 68	
			2,547 12
Payroll, correcting omission, by error.....			10 00
Total.....			\$68,397 51
Balance on hand June 30, 1895.....		\$6,866 43	
Balance on hand June 30, 1894.....		3,391 67	
Purchased and not distributed.....			3,474 76
Total purchased.....			\$71,872 27

TABLE No. 17.

Showing the Cost of the Different Departments of the Institution for the forty-sixth fiscal year, ending June 30, 1895.

Department.	Amount.
Kitchen and Dining-room	\$13,424 67
Male Department	2,435 27
Female Department	510 92
Bakery	2,362 90
Laundry	280 53
Engine-room	145 68
Farm, Garden, Dairy, and Stable..	
Farm	\$263 55
Garden	335 29
Dairy	358 05
Stable	550 99
	1,507 88
Trustees' salaries	990 70
Building and repairs	997 06
Miscellaneous	612 29
Pharmacy	1,220 84
Sewing-room	1,305 13
Furnishings	333 89
Center Building	358 58
Office	525 69
Payroll	33,871 98
Fuel	4,564 50
Light	1,521 59
Carpenter-shop	20 59
Ice	1,390 69
Nightwatch	15 94
Chapel	19
Total	\$68,397 51
Balance on hand June 30, 1895	\$6,866 43
Balance on hand June 30, 1894	3,391 67
Purchased and not distributed	3,474 76
Total purchased	\$71,872 27

TABLE No. 18.

Showing Articles Consumed, and Other Expenses, for the forty-seventh fiscal year, ending June 30, 1896.

Articles.		Quantity.	Amount.	
Flour	Wheat	87,808 lbs.	\$1,676 60	\$1,772 32
	Graham	4,350 lbs.	95 72	
Meat	Beef	66,339½ lbs.	\$3,102 94	4,136 03
	Mutton	5,328 lbs.	279 69	
	Veal	3,171 lbs.	217 11	
	Ham and bacon	3,289½ lbs.	438 61	
	Salt pork	963½ lbs.	86 92	
	Sausage	20 lbs.	2 00	
	Poultry	74 lbs.	8 76	
Sugar		18,899 lbs.		1,068 10
Tea		1,018 lbs.		205 87
Syrup		1,385 gals.		329 44
Honey		1,386 lbs.		72 49
Potatoes		90,988 lbs.		1,012 17
Butter		7,213 lbs.		1,601 82
Coffee		5,102 lbs.		1,077 12
Lard		1,900 lbs.		170 75
Fish		5,162½ lbs.		381 86
Eggs		2,570 doz.		626 20
Beans		8,097 lbs.		245 87
Rice and cr. wheat.	Rice	2,500 lbs.	\$127 95	165 71
	Cracked wheat	1,083 lbs.	37 76	
Corn, oat meal, etc.	Corn meal	1,250 lbs.	\$21 73	421 39
	Oat meal	62 bbls.	345 80	
	Hominy	1,030 bbls.	47 36	
	Germea	26 pkgs.	6 50	
Fruit	Prunes	21,028 lbs.	\$1,085 99	1,895 75
	Raisins	4,911 lbs.	220 62	
	Apples	1,367 lbs.	98 19	
	Pears	4,418 lbs.	276 65	
	Peaches	182 lbs.	9 20	
	Fresh fruit		32 50	
	Apricots, canned	18 doz.	26 40	
	Cherries, canned	2 doz.	3 30	
	Blackberries, canned	16 doz.	23 54	
	Peaches, canned	17½ doz.	28 68	
	Pears, canned	14 doz.	23 20	
	Pie fruit, canned	52 doz.	66 98	
	English currants	4 lbs.	50	
Salt		5,470 lbs.		52 93
Vinegar		245½ gals.		36 20
Groceries	Baking powder	225 lbs.	\$73 50	
	Baking soda	76½ lbs.	5 29	
	Cinnamon	60½ lbs.	12 16	
	Citron	25 lbs.	4 30	
	Curry powder	3 botls.	60	
	Catsup	4 botls.	92	
	Chocolate	23½ lbs.	8 77	
	Cornstarch	91 lbs.	5 37	
	Cloves	5 lbs.	1 35	
	Cocoa	3 lbs.	1 35	
	Cocoanut	27 lbs.	10 88	
	Cheese	775½ lbs.	101 95	
	Crackers	1,869 lbs.	100 07	
	Clams	12 cans.	1 92	
	Ginger	15 lbs.	2 15	
	Jelly	41 cans.	5 83	
	Lobsters	14 cans.	3 45	
	Mace	1 lb.	50	

TABLE No. 18—Continued.

Articles.		Quantity.	Amount.	
Groceries—Continued.				
	Nutmegs	5 $\frac{3}{4}$ lbs.	\$2 97	
	Mustard	56 lbs.	7 67	
	Mushrooms	11 lbs.		
	Macaroni	170 lbs.	9 35	
	Oysters	57 cans.	11 24	
	Clive oil	37 bottles.	33 07	
	Pepper	215 lbs.	29 61	
	Pickles	40 gals.	17 01	
	Sardines	24 cans.	3 50	
	Salmon	10 cans.	1 25	
	Shrimps	10 cans.	2 50	
	Sage	11 lbs.	2 83	
	Extracts	33 bottles.	31 21	
	Vermicelli	30 lbs.	1 75	
	Worcestershire sauce	13 bottles.	10 08	
	Bay leaves	5 lbs.	2 20	
	Hops	20 lbs.	5 65	
	Allspice	7 lbs.	1 25	
Miscellaneous	Pearl barley	150 lbs.	7 74	
	Cream tartar	7 lbs.	2 80	
	Condensed milk	12 doz.	24 30	
	Mince-meat	36 pkgs.	3 75	
	Sago	95 lbs.	4 10	
	Olives	10 gals.	6 90	
	Tapioca	50 lbs.	2 00	
	Celery salt	2 bottles.	30	
	Yeast	5 doz.	2 50	
				\$567 81
Soap	Kitchen	4,100 lbs.	\$183 75	
	Bath	669 lbs.	45 46	
	Toilet	1,407 lbs.	73 93	
	Sapolio	549 lbs.	37 95	
	Shaving	12 lbs.	4 90	
	Bath brick	42 lbs.	1 67	
	Tallow	1,479 lbs.	59 16	
	Toilet soap	1 pkg.	25	
				407 07
Drugs, etc.	Drugs		\$975 50	
	Corks	17 gross.	12 05	
	Absorbent cotton	25 lbs.	9 00	
	Sterilizer	1	3 00	
	Bandages		2 43	
	Hot-water bags		3 60	
	Trusses		5 00	
	Surgical vessels	1	1 00	
				1,011 58
Liquors		241 $\frac{1}{2}$ gals.		117 11
Tobacco		639 lbs.		265 41
Dry goods	Canton flannel	247 $\frac{1}{2}$ yds.	\$17 85	
	Pequot sheeting	257 yds.	41 74	
	Linen	205 yds.	118 77	
	Muslin	133 yds.	10 64	
	Muslin, Indianhead	929 $\frac{3}{4}$ yds.	58 64	
	Checks, Amoskeag	619 yds.	46 28	
	Silesia jeans	96 $\frac{1}{2}$ yds.	7 41	
	Calico prints	1,518 $\frac{1}{2}$ yds.	114 28	
	Ticking	139 $\frac{1}{4}$ yds.	15 31	
	Oilcloth	188 $\frac{3}{4}$ yds.	44 02	
	Buttons	116 doz.	12 23	
	Thread	133 doz.	51 67	
	Towels	7 $\frac{1}{6}$ doz.	8 93	
	Handkerchiefs	59 doz.	26 65	
	Needles	4,000	5 40	
	Safety pins	19 $\frac{1}{6}$ doz.	16 24	
	Hairpins	30 doz.	6 42	
	Combs	179	13 99	
	Caledonia checks	125 $\frac{3}{4}$ yds.	13 84	
				714 33

TABLE No. 18—Continued.

Articles.		Quantity.	Amount.	
Clothing and hats	Ladies' hose	6 doz.	\$13 72	
	Ladies' vests	20 doz.	70 00	
	Suspenders	15 doz.	23 41	
	Coats	21 $\frac{1}{2}$ doz.	286 61	
	Drawers	27 $\frac{1}{2}$ doz.	87 88	
	Men's vests	17 $\frac{1}{2}$ doz.	86 21	
	Overalls	11 $\frac{7}{8}$ doz.	67 03	
	Pants	15 $\frac{1}{2}$ doz.	149 41	
	C. F. shirts	20 $\frac{1}{2}$ doz.	73 91	
	Overshirts	1 $\frac{1}{6}$ doz.	1 25	
	Hickory shirts	25 $\frac{5}{12}$ doz.	127 71	
	Socks	85 doz.	71 60	
	Wool hats	17 doz.	100 98	
	Straw hats	13 $\frac{7}{12}$ doz.	40 03	
				\$1,199 75
Miscellaneous dry goods	Cotton batting	15 bales.	\$2 00	
	Cretonne	21 $\frac{3}{4}$ yds.	2 71	
	Butcher linen	12 yds.	3 60	
	Tarleton	14 $\frac{3}{4}$ yds.	1 84	
	Mosquito bar	8 yds.	45	
	Cheese cloth	295 $\frac{3}{4}$ yds.	15 13	
	Yarn	98 balls.	10 98	
	Crape		1 50	
	Tape	22 boxes.	11 00	
	Tape measures	5	25	
	Gloves	6 pairs.	3 00	
	Cloaking	27 yds.	23 62	
	Silesia	56 $\frac{1}{2}$ yds.	4 80	
	Corset laces	1 gross.	75	
	Thimbles	3 doz.	1 35	
				82 98
Shoes	Brogans	19 $\frac{1}{2}$ doz.	\$220 32	
	Ladies' kid bals.	3 $\frac{6}{8}$ doz.	37 50	
	Slippers	35 $\frac{1}{3}$ doz.	267 54	
	Rubber boots	5 prs.	15 00	
	Shoe findings		82 18	
Furniture and crochery	Shoe laces	57 doz.	4 70	
	Dinner plates	21 $\frac{1}{2}$ doz.	\$4 53	
	Curtains	1 $\frac{1}{8}$ doz.	6 60	
	Nappies	3 $\frac{1}{4}$ doz.	6 28	
	Cups and saucers	17 doz.	15 81	
	Syrup jugs	1 $\frac{2}{2}$ doz.	3 60	
	Washbowls and pitchers	1 $\frac{2}{2}$ doz.	4 50	
	Tumblers	17 $\frac{1}{2}$ doz.	8 05	
	Pie plates	2 doz.	1 70	
	Soup plates	10 $\frac{8}{2}$ doz.	8 81	
	Platters	1 doz.	2 00	
	Lamps	1	50	
	Mirrors	2	90	
	Water pitchers	1 $\frac{1}{2}$ doz.	5 19	
	Milk pitchers	1 $\frac{1}{2}$ doz.	3 04	
	Fruit jars	4 doz.	3 10	
	Bedpan	1	1 25	
	Shade rollers		1 86	
				627 24
Hardware and tinware	Milkcans	10	\$8 60	
	Oilcans	2	70	
	Lanterns	2	1 26	
	Pails	18	7 23	
	Dishpans	21	20 13	
	Saucepans	3	2 35	
	Dustpans	17	1 63	
	Coffeepots	5	6 45	
	Dippers	3	90	
	Tin cups	114	6 05	
	Cuspidors	9	1 60	
	Ladles	5	43	
	Tin chambers	121	35 50	
	Tin plates	24	1 44	
				77 72

TABLE No. 18—Continued.

Articles.		Quantity.	Amount.
Hardware and tinware—Continued.			
	Washboards	2	\$0 66
	Washbasins	7	1 25
	Shovels	13	15 50
	Nails	665 lbs.	23 60
	Bread pans	6	3 00
	Picks	2	2 25
	Egg-beater	1	1 00
	Strainers	2	1 06
	Key rings	35	2 30
	Key chains	20	3 78
	Scissors	1 pair.	75
	Corkscrew	1	15
	Tacks	100 papers.	3 90
	Couplings	31	3 90
	Elbows	31	2 06
	Tees	29	3 99
	Bushings	33	1 69
	Plugs	6	09
	Sockets	12	33
	Valves	27	18 99
	Packing	27 lbs.	10 20
	Emery cloths	2	75
	Sandpaper	22 doz.	3 00
	Rope	46½ lbs.	6 19
	Hat hooks	192	3 35
	Twine		60
	Dresser	1	75
	Toasting fork		25
	Salts and peppers		15
Miscellaneous hardware			
	Asbestos plates	3 lbs.	45
	Bolts	18 lbs.	3 55
	Bits	7 set.	7 65
	Box corners	200	1 20
	Butcher knives	2	2 15
	Bells	2	46
	Brads	1 lb.	15
	Buttons	24	2 40
	Bull ring	1	25
	Cement		25
	Currycomb	1	20
	Cultivator stone	3	2 25
	Castings	7	6 55
	Cotton waste	50 lbs.	6 00
	Clevises	12	2 50
	Canteens	2	1 50
	Drill	1	15
	Damper	1	25
	Clothes lines	20	10 00
	Coffee mill	1	50
	Chisels	1 set.	10 00
	Cultivator teeth	5	75
	Castors	2	40
	Chalk line	1	20
	Chop knife	1	35
	Draw bands	2	1 50
	Evener	1	65
	Faucets	6	1 20
	Files	19	1 75
	Flume gates	220	4 95
	Egg-beater	1	13
	Flatirons	6	3 35
	Gopher traps	10	2 20
	Gauge glasses	6	3 00
	Glass-cutters	2	40
	Galvanized pipe	40	14 50
	Grindstone	1	1 95
	Hooks	48	1 00
	Hay forks	2	2 00

TABLE NO. 18—Continued.

Articles.	Quantity.	Amount.	
Miscellaneous hardware—Continued.			
Hair-clippers	1 pair.	\$4 50	
Handles	19	3 05	
Hayrake teeth	4	1 80	
Hammers	2	47	
Hinges	156	11 90	
Horse-clippers	1 pair.	3 50	
Hose	300 feet.	36 00	
Hasps	3	50	
Hoes	3	1 20	
Iron cap	1	15	
Icecream freezer	1	20 00	
Lemon squeezer	1	10	
Locks	27	5 65	
Measures	1	30	
Nuts	23 lbs.	55	
Oilstones	2	1 00	
Orange-clippers	2	1 00	
Powder and shot		80	
Pans	18	94	
Plugs	12	4 20	
Potato hooks	2	1 50	
Plumbing		4 75	
Pulleys	3	2 05	
Pruners	3	4 75	
Plowslips	50	14 00	
Plowshares	27	22 00	
Rakes	3	2 25	
Repairs, kitchen utensils		10 50	
Rivets	5	1 35	
Rules	2	30	
Range lids	2	8 00	
Reducers	2	30	
Snap	2	30	
Sprinklers	18	16 50	
Scythe stones	6	35	
Steel	2½ lbs.	31	
Screwdriver	1	25	
Sandpaper	12 sheets.	15	
Square	1	2 00	
Screws	30 gross.	11 92	
Staples	10 lbs.	1 04	
Sash cord	100 feet.	65	
Strap iron	141 lbs.	7 26	
Springs	8	1 25	
Singletree	1	80	
Saw clamp	1	1 00	
Solder	20 lbs.	3 80	
Tacks	7 lbs.	1 40	
Tin	23 lbs.	2 80	
Twine	13 lbs.	2 60	
Trowels	2	40	
Triangle	1	1 15	
Tubing	10 feet.	1 25	
Tap and die	1	2 35	
Union	1	35	
Ventilator grates	6	2 40	
Wire net	300 lbs.	14 25	
Wire	7 lbs.	70	
Wire screens	306 feet.	6 75	
Wheel repairs		2 50	
Wrenches	2	1 45	
Washers	2 set.	60	
Wire fence	102 lbs.	4 08	
Zinc	8 lbs.	1 00	
Spoons, tin and iron	18		\$575 62
Bread knife	1		75
Carpet; matting	8		50
Mats			6 18

TABLE No. 18—Continued.

Articles.		Quantity.	Amount.	
Grain and feed	Barley	23,902½ lbs.	\$235 84	
	Bran	14,511 lbs.	165 42	
	Wheat	1,542 lbs.	19 42	
Garden seeds				\$420 68
Lumber, laths, and shakes				149 42
Building materials	Lime and cement	10 lbs.		736 19
	Brooms and brushes			16 15
Books and stationery				110 34
Light	Gasoline	2,145 gals.	\$510 05	
	Coal oil	120 gals.	26 25	
	Electric light, 10 months		2,283 33	
	China nut oil	31 gals.	20 55	
Fuel and power				2,840 18
	Electric power, 10 months		\$1,141 67	
	Crude oil	2,340 bbls.	3,186 03	
	Wood	58½ cords.	394 88	
	Coal	40,310 lbs.	487 47	
Paints, oils, and glass	Paints		\$81 27	
	Glass	114 panes.	31 90	
	Linseed oil	126 gals.	80 69	
	Lard oil	45 gals.	26 20	
	Crude oil	60½ gals.	10 35	
	Turpentine	80 gals.	48 90	
	Neatsfoot oil		1 25	
	Lampblack		70	
				281 26
Bedding	Bedsread	1	\$1 50	
	Rubber sheets	84	76 47	
Iron pipe and castings				77 97
Miscellaneous	Sal soda	3,754 lbs.	\$63 37	
	Maintenance, Med. Director		1,500 00	
	Lye	26 lbs.	2 38	
	Fly paper	10 boxes.	6 35	
	Toothpicks	21 boxes.	99	
	Axle grease	18 cans.	2 22	
	Caustic soda	64 cans.	49 05	
	Toilet paper	266½ pkgs.	205 95	
	Blacking	59 boxes.	4 15	
	Moth balls	6 lbs.	1 00	
	Thermometers	15	15 75	
	Chloride of lime	121 cans.	72 60	
	Ammonia	68 gals.	31 85	
	Surgical instruments		50 05	
	Playing cards	57 pks.	4 34	
	Matches	248 doz.	14 82	
	Paraffine	110 lbs.	12 50	
	Lamp wicks	24	20	
	Sulphur candles	28	1 40	
	Baskets	33	7 70	
	Gas tapers	15 boxes.	1 98	
	Starch	357 lbs.	26 96	
	Rough on Rats	2 boxes.	26	
	Fans	2 doz.	1 20	
	Machine oil	4 bottles.	68	
	Lamp chimneys	17	1 76	
	Demijohns	2	1 60	
	Sponges	29	7 45	
	Razor strops	5	4 15	
	Traveling expenses		4 60	
	Acetic acid	1 pint.	40	
	Absorbent cotton	23 lbs.	8 25	
	Ammonia	1 gal.	35	
	Bedpans	3	6 00	
	Bougies	2	2 56	
	Bluestone	5 lbs.	50	
	Bits	2	2 00	
	Battery cords		50	
				32 60

TABLE No. 18—Continued.

Articles.	Quantity.	Amount.	
Miscellaneous—Continued.			
Bluing.....	1 box.	\$0 50	
Borax.....	1 lb.	10	
Bed blocks.....	200	5 00	
Clothespins.....	2 boxes.	2 00	
Chamois.....	1	1 00	
Chair seats.....	24	2 40	
Candles.....	30	1 70	
Condition powders.....	1 box.	50	
Calcimine.....	40 lbs.	1 00	
Coloring.....	6 lbs.	1 60	
Cochineal.....	4 oz.	25	
Chalk line.....	1	15	
Dye.....		25	
Electric handles.....		25	
Firebrick.....	100	4 00	
Flaxseed.....	1 lb.	10	
Glue.....	12 lbs.	2 75	
Bandages.....	2 rolls.	19 00	
Gauge glasses.....	2	1 50	
Hot-water bags.....	12	7 40	
Insect powder.....	2 lbs.	1 20	
Manilla paper.....	56 lbs.	3 36	
Oyster shells.....	40 lbs.	85	
Plaster Paris.....	3 lbs.	25	
Rubber bands.....	1 box.	59	
Saltpetre.....	11 lbs.	2 30	
Silver polish.....	9 bxs.	1 90	
Sal ammoniac.....	5 lbs.	1 00	
Sulphur.....	5 lbs.	25	
Sulp. carbon.....		40	
Twine.....	4 lbs.	85	
Thyme.....	1	15	
Trusses.....	3	2 00	
Tar.....	5 gals.	75	
Umbrellas.....	5	3 75	
Whiting.....	2 lbs.	20	
Payroll.....			\$2,189 06
Canned vegetables.....			35,556 14
Corn.....	74 doz.	\$80 40	
Squash.....	26 doz.	31 40	
Tomatoes.....	92 doz.	82 40	
Fresh vegetables.....	1,000 lbs.	20 23	
Blacksmithing.....			214 43
Horseshoeing.....			111 74
Trustees' salaries.....			114 80
Freight and express.....			929 30
Ice.....	280,773 lbs.		118 76
Telegraph and telephone.....			1,403 86
Horse blankets.....	2		54 65
Whips.....	4		7 00
Harness and repairs.....			5 50
Printing and advertising.....			36 20
			27 50
Total.....			\$71,730 09
Balance on hand June 30, 1895.....		\$6,866 43	
Balance on hand June 30, 1896.....		2,234 80	
Consumed in excess of purchases.....			4,581 63
Total purchased.....			\$67,148 46

TABLE No. 19.

Showing the Cost of the Different Departments of the Institution for the forty-seventh fiscal year, ending June 30, 1896.

Department.	Amount.
Kitchen and Dining-room	\$15,174 61
Male Department	2,340 66
Female Department	387 05
Bakery	2,951 67
Laundry	236 15
Engine-room	89 11
Farm, Garden, Dairy, and Stable..	
Farm	\$321 24
Garden	95 34
Dairy	188 40
Stable	487 81
	1,092 79
Trustees' salaries	929 30
Building and repairs	835 93
Miscellaneous	1 75
Pharmacy	1,236 44
Sewing-room	602 30
Furnishings	225 51
Office	379 23
Payroll	35,556 14
Fuel	5,210 05
Light	2,706 64
Ice	1,403 86
Carpenter-shop	28 87
Night watch	17 53
Shoe-shop	83 60
Chapel	4 50
Printing and advertising	27 50
Total	\$71,730 09
Balance on hand June 30, 1895	\$6,866 43
Balance on hand June 30, 1896	2,284 80
Consumed in excess of purchases	4,581 63
Total purchased	\$67,148 46

TABLE No. 20.

Showing Articles Made in Sewing-room during the biennial period ending June 30, 1896.

Articles.	No.	Articles.	No.
Aprons	731	Sheets (laundry)	36
Bags (clothes)	66	Suspenders	511
Bandages	2	Skirts	201
Blanket, canvas	1	Shrouds	13
Camisoles	10	Sheets (protection)	7
Chemises	17	Shoes (canvas)	1
Covers	23	Scarfs	26
Curtains	49	Splashers	6
Caps (tarleton)	132	Suits (canvas, etc.)	4
Comforters	4	Sleeves	2
Capes	11	Spreads	500
Cases (pillow)	2,017	Shirts	4
Dresses	180	Towels (roller)	544
Drawers	99	Towels (bath)	1,000
Gowns	374	Ticks, bed	77
Leggins	1	Ticks, pillow	43
Muffs	4	Table cloths	53
Mittens	10	Waists	9
Napkins	89	Wristlets	3
Night-shirts	85	Wash-cloths	76
Overalls	2		
Sheets	2,502	Total pieces	9,525

TABLE No. 21.

Showing Produce from the Farm, Garden, and Dairy for the biennial period ending June 30, 1896.

Produce.	Lbs.	Produce.	Lbs.
Vegetables—		Fruits, Etc.—	
Asparagus	23	Lemons	20,091
Beets (table)	8,629	Oranges	97,285
Beans (Lima)	929	Strawberries	3,560
Beans (string)	4,829	Blackberries	239
Cabbage	21,588	Muskmelons	19,233
Celery	1,983	Watermelons	71,174
Cucumbers	5,134	Hay, Fodder, Etc.—	
Cauliflower	2,254	Corn fodder	251,300
Corn (sweet)	10,358	Carrots	32,660
Egg plant	340	Cow-beets	327,500
Endives	571	Corn	2,257
Lettuce	1,654	Hay (barley)	340,000
Mustard	18	Hay (alfalfa)	368,500
Onions	12,143	Parsnips	6,465
Oyster plant	710	Pumpkins	110,000
Okra	1,120	Stock and Poultry—	
Peas (sweet)	3,992	Veal (8 calves)	735
Pepper (green)	154	Pork (74 hogs)	9,544
Pepper (red)	337	Chickens, etc.	175
Parsley	186	Eggs (doz.)	646
Potatoes	25,929	Milk (gals.)	129,090
Rhubarb	60	Bones (fertilizer)	2,000
Radish	1,108		
Spinach	1,686		
Squash	16,182		
Sweet potatoes	17,239		
Tomatoes	28,494		
Turnips	13,119		

TABLE No. 22.

Showing, in half-yearly periods, the Per Capita Cost of Maintenance, inclusive of employés, and for patients only, for the biennial period ending June 30, 1896.

Semi-Annual Periods.	Including Employés.		Patients Only.		Decrease.....
	No.	Per Capita.	No.	Per Capita.	
First 6 months of biennial period.....	313	59 cts.	260	71 cts.	-----
Second 6 months of biennial period	381	50 cts.	323	60 cts.	11 cts.
Third 6 months of biennial period	449	44 cts.	391	51 cts.	9 cts.
Fourth 6 months of biennial period	496	39 cts.	438	44 cts.	7 cts.
Total					27 cts.
Average for the biennial period.....	410	48 cts.	355	56 cts.	

Decrease in per capita cost of maintenance, patients only, during biennial period ending June 30, 1896, 27 cents, or 48%.



THIRD BIENNIAL REPORT

OF THE

MENDOCINO STATE ASYLUM

FOR THE INSANE,

For the Two Years Ending June 30, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.
1896.



REPORT.

To his Excellency JAMES H. BUDD, Governor of California :

DEAR SIR: We, the Directors of the Mendocino Asylum, beg leave to submit to you, as required by law, our biennial report for the two fiscal years ending June 30, 1896, together with the reports of the Medical Superintendent and Treasurer, herewith presented.

By reference to the Superintendent's report, it will be seen that the net increase in the number of patients remaining under care and treatment June 30, 1895, was 81, and for the succeeding year, ending June 30, 1896, the net increase was 59, making a total gain for the two years of 140.

The same report shows that the average cost per capita for maintenance is nearly one half less than that at the close of the fiscal year ending June 30, 1894, which was 92 $\frac{3}{4}$ cents per day, and for the fiscal year ending June 30, 1896, it was 50 cents per day.

The Treasurer's report shows that of the amount appropriated by the Legislature for maintenance for the forty-seventh fiscal year, ending June 30, 1896, there remains in the fund at the end of the year, unexpended, nearly \$12,000.

There can be no doubt but that the carrying out of contemplated reforms in the general laws for the government of Insane Asylums would result in still greater saving.

To that end we would therefore recommend that the law providing for contracts for furnishing supplies to be let semi-annually be changed to annually; and that the matter of salaries of officers and employés be made uniform, and in some cases materially reduced.

The Asylum building is constructed upon the same general plan as the Agnews Asylum, and is now in an unfinished condition. An Administration Building will be necessary to complete the structure, and it is our hope that this, certainly one of the best located institutions of the State, will receive the favorable consideration at the hands of the next Legislature, with the Executive sanction to measures of appropriation, which will result in the completion of the Asylum.

We have heretofore appealed to the Honorable State Board of Examiners for authority to incur a debt, not exceeding \$15,000, for the introduction of an additional water-supply. We have an abundance of water, but the pipe from the supply to the Asylum is not of a sufficient size to carry an adequate supply of water to the Asylum buildings. We favor an independent system, leaving the present one for emergencies, with sufficient capacities to operate a motor for an electric plant.

Respectfully submitted.

J. H. SEAWELL, President.

Attest: W. W. CUNNINGHAM, Secretary.

REPORT OF SECRETARY AND TREASURER.

To the Honorable Board of Directors of Mendocino Asylum:

GENTLEMEN: The following report of the receipts and expenditures of the Mendocino Asylum, for the two years ending June 30, 1896, is respectfully submitted for your consideration:

RECEIPTS.

To appropriation for *Maintenance*, for forty-sixth fiscal year \$35,000 00

DISBURSEMENTS.

1894.		
July	By furniture account	\$1,588 20
	By supplies	1,625 86
	By expense	59 55
	By building	27 00
	By salary (Treasurer)	150 00
	By payroll	2,436 20
August	By supplies	2,728 64
	By building	242 19
	By livestock	160 00
	By expense	73 17
	By furniture	5 50
	By payroll	2,452 25
September	By supplies	2,149 60
	By furniture	39 55
	By expense	177 08
	By payroll	2,533 30
October	By supplies	2,761 85
	By expense	201 70
	By salary (Treasurer)	150 00
	By furniture	94 50
	By payroll	2,585 65
November	By supplies	1,639 14
	By salaries and mileage (Directors)	1,339 00
	By expense	53 85
	By payroll	2,676 70
December	By supplies	1,976 12
	By livestock	72 25
	By furniture	10 30
	By expense	42 95
	By payroll	2,618 45
1895.		
January	By supplies	2,059 25
	By expense	60 60
	By salary (Treasurer)	200 00
	By furniture	9 60
		----- \$35,000 00

RECEIPTS.

To appropriation for *Deficiency*, for forty-sixth fiscal year \$35,000 00

DISBURSEMENTS.

1895.

February	By payroll for January and February	\$5,119 80
	By supplies	1,368 77
	By expense	30 40
	By furniture	7 50
	By building	40 00
March	By payroll	2,572 65
	By supplies	2,306 89
	By expense	268 20
April	By payroll	2,601 65
	By supplies	1,463 17
	By expense	87 93
	By building	283 40
May	By payroll	2,611 75
	By supplies	2,757 76
	By expense	461 43
	By building	145 00
	By livestock	78 00
	By salaries (Directors and Treasurer)	695 20
June	By payroll	2,600 30
	By supplies	3,232 48
	By furniture	4,160 15
	By expense	115 40
	By building	40 48
August	By supplies	61 95
	By expense	9 61
November	By supplies	82 50

1896.

March	By supplies in June, 1895	38 40
	Balance in fund	1,759 23
		<hr/> \$35,000 00

RECEIPTS.

To appropriation for *Maintenance*, for forty-seventh fiscal year \$72,500 00

DISBURSEMENTS.

1895.		
July	By payroll	\$2,663 20
	By supplies	1,574 03
	By expense	52 81
August	By supplies	2,019 04
	By salaries (Directors)	305 20
	By expense	131 60
	By payroll	2,751 30
September	By supplies	2,670 63
	By expense	123 20
	By payroll	2,793 30
October	By supplies	2,087 33
	By expense	138 16
	By payroll	2,892 65
November	By supplies	2,224 38
	By payroll	2,846 30
December	By supplies	2,680 69
	By salaries (Directors and Secretary)	78 72
	By payroll	2,672 65
1896.		
January	By supplies	1,653 30
	By payroll	2,679 65
February	By supplies	1,918 89
	By payroll	2,673 55
March	By supplies	2,554 47
	By payroll	2,677 95
	By salary (Secretary)	150 00
April	By supplies	1,852 54
	By payroll	2,869 45
May	By supplies	2,070 22
	By payroll	2,669 80
June	By supplies	2,356 29
	By salaries (Directors and Secretary)	1,054 60
	By payroll	2,673 60
	Balance in fund	11,940 50
		----- \$72,500 00

RECEIPTS.

To appropriation, *Special Mendocino Insane Asylum Fund* \$15,728 73

DISBURSEMENTS.

1895.

March	By paid for building account, allowed as deficiency in fund for finishing Female Ward.....	\$8,495 74
	By improvement of grounds, allowed as above.....	162 00
	By building account, allowed as above.....	620 19
	By building account, allowed as above.....	264 37
	By expense account.....	92 00
	By supplies.....	161 44
	By Bateman Bros.....	789 64
	By J. J. Lawton.....	134 10
	By Copeland & Peirce.....	23 10
May	By building account.....	240 92
June.....	By building account.....	43 05
July.....	By sewerage account.....	1,172 48
August.....	By sewerage account.....	312 40

1896.

January	By sewerage account.....	19 00
February	By sewerage account.....	316 62
March	By sewerage account.....	1,100 00
April	By improvement of grounds.....	203 49
May	By improvement of grounds.....	338 51
	Balance in fund.....	1,239 68
		<hr/> \$15,728 73

APPROPRIATION FOR FINISHING FEMALE WARD.

To balance in fund July 1, 1894..... \$27 05

DISBURSEMENTS.

1894.

October.....	By supplies account (garden tools).....	\$8 00
November.....	By furniture account.....	19 05
		<hr/> \$27 05

CONTINGENT FUND.

RECEIPTS.

To balance in fund July 1, 1894	\$260 00	
To cash received from board of patients	5,060 25	
To cash received from sale of hogs	158 70	
To cash received from rent of house	75 00	
To cash received from sale of hay	51 25	
To cash received from sundries	99 55	
To cash received from Medical Superintendent	141 85	
To cash received from rebate on lumber	52 52	
To cash received from Deficiency Fund, forty-fifth fiscal year, for costs paid in Bartlett vs. Directors	128 00	
		<u>\$6,027 12</u>

DISBURSEMENTS.

By cash for contingent expenses of Medical Superintendent	\$1,080 10	
By cash for hogs purchased	121 32	
By cash for attorney's fees	112 50	
By cash for lumber	475 47	
By cash for costs in Bartlett vs. Directors	129 35	
By cash for furniture	10 00	
By cash for incidental expenses (Superintendent's office)	69 75	
By cash for livery	38 00	
By cash for transportation of money from Sacramento	16 05	
By cash for expenses of Medical Superintendent and Director to San Francisco	32 90	
By cash for hardware	30 04	
By cash for poultry	4 50	
By cash for expenses of Directors to Sacramento, November, 1895, attending State Board meeting	39 50	
By cash for telephone service	11 00	
By cash for advance expenses of Medical Superintendent, to be repaid	100 00	
Balance on hand July 1, 1896	3,756 64	
		<u>\$6,027 12</u>

Respectfully submitted.

W. W. CUNNINGHAM,
Secretary and Treasurer.

September 19, 1896.

REPORT OF THE MEDICAL SUPERINTENDENT.

FOR THE YEAR ENDING JUNE 30, 1895.

To the Honorable Board of Directors of the Mendocino Asylum:

GENTLEMEN: I herewith submit to you my annual statistical report for the year ending June 30, 1895. Another report will be required of the Superintendent before the time of making the usual biennial report to the Governor, and I shall therefore offer no extended observations at this time, but will make a detailed statement regarding the affairs of this institution at the time of making the biennial report. For the past year, the daily per capita cost for maintaining the patients has been $61\frac{4}{10}$ cents, with a daily average attendance of 260 patients. This includes the entire expense for food, clothing, fuel, care, and medical attendance, and salaries of the Board of Directors, officers, and employés.

ANNUAL SUMMARY.

Showing the Number of Patients Admitted, Number under Care and Treatment, Number Discharged, Died, and Eloped during the year, and the Number Remaining in the Asylum, June 30, 1895.

	Males.	Females.	Total.
Number of patients June 30, 1894	174	41	215
Number admitted during the year	136	46	182
Whole number under care and treatment.....	310	87	397
Number discharged recovered	41	22	63
Number discharged improved	3	1	4
Number discharged unimproved	1	0	1
Number discharged not insane	2	0	2
Number died	19	8	27
Number eloped	4	0	4
Number discharged, died, and eloped	70	31	101
Number remaining June 30, 1895	240	56	296

REPORT OF MEDICAL SUPERINTENDENT.

FOR THE YEAR ENDING JUNE 30, 1896.

To the Honorable Board of Directors, Mendocino Asylum:

GENTLEMEN: In conformity to the law which governs this Asylum, I herewith submit to you my report of this institution, for the year ending June 30, 1896.

STATISTICAL TABLES—1895-96.

Movement of Patients from June 30, 1895, to June 30, 1896.

	Males.	Females.	Total.
Number of patients June 30, 1895.....	240	56	296
Number admitted during the year.....	150	42	192
Number of returned escapes.....	4	0	4
Whole number under care and treatment.....	394	98	492
Number discharged recovered.....	57	17	74
Number discharged improved.....	4	3	7
Number discharged unimproved.....	2	2	4
Number discharged not insane.....	2	0	2
Number transferred to Agnews Asylum.....	0	1	1
Number died.....	40	5	45
Number eloped.....	4	0	4
Number discharged, died, eloped, etc.....	109	28	137
Number remaining June 30, 1896.....	285	70	355

From the appended tables, it will be seen that we commenced the year with 296 patients, and at the end, June 30, 1896, we had 355—a net increase of 59. During the preceding year, the numerical increase was 81, making a total increase of 140 since the last biennial report.

During the year ending June 30, 1896, there were admitted 150 males and 42 females, making a total of 192. During the preceding year, the admissions were 182.

The percentage of recoveries to admissions during the year 1894-95 was 34.62, and during the year 1895-96 it was 38.54. The percentage of recoveries to admissions depends largely upon the character of the cases admitted. These may be divided into two classes: The first class consists of all those cases which are suffering from functional mental derangements, from causes which tend to exhaust the vital forces. The second class includes those who are suffering from chronic disease of the brain or its membranes, from any cause, and those suffering from defect-

ive organizations inherited from neurotic ancestors. The first class will furnish a very large proportion of the recoveries. The second is made up largely of hopeless cases when admitted. They help to swell the death-rate, and increase the permanent population of the Asylum.

UNIFORMITY OF ASYLUM LAWS.

There can be no difference of opinion as to the advisability of a general law governing the fiscal concerns of all of the Asylums of the State. In the framing of a general law, such matters as the equalizing of salaries, advertising for supplies, commitments, transportation of the insane to Asylums, and many other things, ought to be considered and made uniform in all of the Asylums.

In the matter of advertising, much money could be saved to the State by advertising annually instead of semi-annually, and no harm or inconvenience would result to the Asylums. Contractors could afford to bid lower, if the contracts were for a year instead of for a shorter time.

INSANE CRIMINALS.

In California, as in other States, there are quite a large number of insane criminals and convicts. No provision having been made for them in the penal institutions of the State or elsewhere, they are sent to the Asylums to be cared for. This is certainly wrong; it is an insult and an injury to those poor unfortunates who have lost their reason to mix them with criminals. The Asylums of the State are not constructed to confine criminals, and it is almost impossible to prevent their escape. A properly constructed building should be erected at an early date, where such persons could be safely kept. This ought to be done as a matter of justice to the non-criminal insane, as well as of safety to citizens, as certainly no more dangerous person can be at large than an insane convict.

ALIENS AND CHINESE IN OUR ASYLUMS.

On January 1, 1896, there were 160 insane Chinese in the Asylums of this State. These are all charity patients. The cost to the State, including the cost of committing and transportation, amounts to about \$30,000 annually. I am unable to ascertain the number of aliens on our Asylum rolls, other than Chinese, but certainly the number is much greater than the number of Chinese. It seems that some steps ought to be taken by the Legislature to return these insane aliens to the country where they belong, and thus relieve the taxpayers of the State of an immense burden.

WATER-SUPPLY.

There is an urgent necessity for an additional amount of water for fire protection, for lighting, for power for running the laundry and other machinery, and for irrigation.

There is an abundant supply of water in the creek for all of these purposes, if appropriated. The water-pipe which supplies the building is entirely inadequate to furnish the necessary amount of water, it being but four inches in diameter. This pipe furnishes water for the kitchen, laundry, boiler-house, the wards, and for running the elevators; also, a limited amount of water for irrigating lawns, but when the faucets are opened for irrigating, the pressure is so reduced that the elevators refuse to move. In case of a fire, but one fire hydrant could be used at a time, as the opening of a second would so reduce the pressure as to render both ineffectual.

In an institution of this kind, where a large number of unfortunate citizens are confined because of their loss of reason, it is a grave mistake, if not a crime, to fail to provide all necessary precautions against fire. Another reason why there is an urgent necessity for an increased water-supply, is because it now costs the State over \$100 per month for lighting the building, and this amount will steadily increase as it becomes necessary to open more wards. By increasing the water-supply, and putting in an electrical lighting plant, there could be saved to the State at least \$1,200 each year. In addition to this, the same power could be used to run the laundry machinery, an ice plant, lathes and saws for the carpenter shop, or for any other purpose where power is required; and the same water, after coming from the wheel, can be utilized anywhere on the place for irrigating. The use of steam would only be necessary for cooking, heating water, etc. This would result in a saving of wood, which now is a large item of expense.

The last Legislature was fully alive to the necessity of an increased water-supply at this Asylum, and an appropriation was made for the purpose, but to relieve the overburdened taxpayer, the Executive found it necessary to refuse to approve it, and of course the work has been delayed. At the present time the necessity for an increase in the water-supply is still more urgent than it was two years ago, as there is an increase in the number of patients, and the necessity for more water for irrigation and fire protection becomes more urgent.

The estimate for this increased water-supply, with electrical plant, wiring building, etc., is as follows:

For pipe-line, 12, 13, and 14-inch steel pipe; the 12-inch pipe to be of No. 12 steel, and the 13- and 14-inch pipe to be of No. 14 steel. Entire length of pipe, 7,000 feet, including the headgate irons, screens, waterwheels, automatic regulators, and connections for driving the dynamos; total cost of above.....	\$5,000 00
Estimate for the electrical equipment, including two dynamos, 500 lamps and sockets, necessary station apparatus, wire and wiring for all the lights and poles, freight, etc., including all construction work.....	3,500 00
Construction of dam and reservoir for impounding water.....	1,500 00
Freight.....	700 00
Putting in pipe, connections, work of construction, etc.	4,300 00
Total cost.....	<hr/> \$15,000 00

ICE PLANT AND COOLING-ROOM.

In a hot climate like ours, ice becomes a necessity, and if the increased water-supply is obtained, which is an urgent necessity, plenty of ice can be made at practically no cost after the plant is put in. The expense of putting in the plant, with a cooling-room for meats, will be about \$3,000.

In Asylums where they have been in use for some time they have become a necessity and source of economy in the saving of meat.

ADMINISTRATION BUILDING.

The Asylum is yet unfinished; a portion of the wards built for patients is necessarily occupied by the officers and employés of the Asylum.

Before an Administration Building can be constructed, this room will be urgently needed for patients. The ward now in use for administration purposes is situated over the kitchen and between the two Ward Buildings. It is hot during the summer months, noisy at all times, and ill adapted for the purpose for which it is being used.

This ward will accommodate 80 patients. A portion of the ward over the laundry is also occupied by employés; if these could be quartered in an Administration Building, 35 more patients could be placed on this ward, thus making room in the two wards for 115 more patients.

Judging from the steady increase in the number of patients in the Asylum, all of this room will be urgently needed before an Administration Building can be completed.

I would recommend that the Administration Building be so constructed as to furnish offices for the Asylum officials, quarters for one physician, and for employés other than attendants, and a ward for 50 patients.

This will increase the number of beds to 165 more than we can at present accommodate.

The estimated cost of such a building is	\$100,000 00
Cost of furnishing.....	10,000 00
Total	<u>\$110,000 00</u>

MAINTENANCE.

On June 30, 1896, there were in this institution, 285 males and 70 females, making a total of 355 patients.

The average monthly increase during the two years was a fraction less than six per month, which would give us 427 patients at the end of the year, June 30, 1897.

The average per capita cost for the year 1895-96 was 50 cents per day. Figuring this rate on 427 patients for the year 1896-97, we get the amount of \$77,927 50. At the same rate of increase, there will be 500 patients at the end of the fiscal year, June 30, 1898, which, at a per capita cost of 45 cents, would amount to \$82,125. Total for the two years, \$160,052 50.

I would recommend that this Board ask the next Legislature for an appropriation of the above amount, for maintenance for the fiscal years 1897-98.

RECAPITULATION.

For maintenance for two years.....	\$160,052 50
For Administration Building	100,000 00
For furnishing same	10,000 00
For ice plant and cooling-room	3,000 00
For increased water-supply, lighting, etc.	15,000 00
Total	<u>\$288,052 50</u>

SEWERAGE.

Since my last report 3,600 feet of sewer-pipe has been laid, with very little cost to the State, the work having been done by patients and attendants. The digging of the ditches for the sewer-pipe was a work of considerable magnitude, as about one fourth of the distance was through a gravel ridge, with an average depth of from 8 to 12 feet, the remaining distance being from 3 to 5 feet in depth. Two large settling-tanks have been constructed in the sewer, which can be flushed during the high water in the winter, or the matter can be used for fertilizing. This sewer system has now been in active operation for several months, and is giving entire satisfaction.

The cost to the State for sewer-pipe, cement, labor laying sewer-pipe, etc., was \$1,820 50.

DRAINAGE.

There has been laid, during the last year, about 20,000 feet of drain tile, and quite a large body of some of the best garden land in the State has been reclaimed and rendered productive. This work has also been done by patients, under the care of the attendants, thus saving much expense to the State, and at the same time benefiting the patients, by giving them employment.

COW BARN.

A cow barn has been constructed of sufficient capacity for twenty-five cows, at simply the cost of the lumber and material, the work of construction having been done by the Asylum carpenter, employés, and patients.

FENCING.

There has been built, since my last report, 3,160 feet of fence around the hay and alfalfa field, thus making it available for pasture after the hay has been cut.

ALFALFA.

About 12 acres of land has been seeded to alfalfa during the year, from which we can get three crops of hay, besides a large amount of pasture in the fall.

FRUIT TREES.

About 700 assorted fruit trees have been set out, and are in a good healthy condition. This will give the asylum a large amount of good fresh fruit in the near future.

BRIDGE AND ROADWAY.

A good substantial bridge has been constructed across the creek which runs through the Asylum grounds, and a roadway thrown up leading to it, and covered with gravel.

IMPROVEMENT OF GROUNDS.

Considerable work has been done in beautifying the grounds. A large number of ornamental trees, shrubs, and flowering plants have been set out, around which nice grass plots have been laid, which improves very materially the appearance of the grounds.

WARD 5.

An additional ward, over the Laundry Building, has been completed and furnished, and is now occupied by patients, thus relieving the crowded condition of wards 1 and 4.

ENTERTAINMENTS.

One of the great necessities of this institution is an assembly hall, for entertainments for the benefit of the patients, and for religious services. The room now in use was constructed for a dormitory; it is entirely too small for the purpose for which it is now used. In the plans for the Administration Building, there is included an assembly hall. On account of the increased number of patients, this hall has become an urgent necessity.

There have been held regular semi-monthly dances, which are greatly appreciated by the patients. We have among the employés of the Asylum an excellent orchestra for such entertainments.

RELIGIOUS SERVICES.

During the last year, regular religious services have been held at the Asylum by the Rev. L. F. McCray, of Ukiah. These services have been regularly attended by many of the patients, who enjoy the meetings and are evidently benefited by them.

Reverend Father O'Connor, of Ukiah, of the Catholic Church, has been assiduous in his attention to those who needed his assistance, and to these gentlemen are due the thanks of this Board.

ACKNOWLEDGMENTS.

I desire to acknowledge the regular receipt of the following newspapers, which are distributed among the patients, and to sincerely thank the publishers of the same for this kind and gratuitous remembrance:

San Francisco Daily Call.	San Francisco Wasp.
San Francisco News Letter.	San Francisco Argus.
San Francisco Abend Post.	San Francisco Breeder and Sportsman.
Yolo Mail.	San José Herald.
Ukiah Republican Press.	Point Arena Record.
Ukiah Herald.	Oakland Enquirer.
Staats Zeitung.	Colusa Sun.
Sacramento Record-Union.	La Vita.
Ukiah Dispatch-Democrat.	Amador Dispatch.
Santa Cruz Surf.	Mendocino Beacon.
L'Italia.	Fort Bragg Advocate.
Virginia Chronicle (Nevada).	A'Uniao Portugueza.
Salinas Democrat.	Visalia Delta.
La Voce del Popolo.	San Bernardino Times-Index.
Marysville Appeal.	Sacramento Bee.
Biggs Argus.	Napa Register.

Also, to T. L. Carothers and John Buckingham (deceased), of Ukiah, and to Mrs. Theo. E. Smith, of San Francisco, for generous donations of books and magazines.

To treat insane patients properly requires the highest qualities which mankind possesses. The percentage of recoveries depends largely upon the manner in which patients are treated by the attendants. Medical attention has its place in the treatment of the insane, but the ultimate recovery of the patient depends upon moral as well as medical treatment. To make the patient feel that he is under the care of friends who are interested in his welfare, is, in many cases, to lift from his mind a heavy burden and start him on the road to reason. Our attendants have, with few exceptions, shown themselves to be fully alive to the responsibilities of their position, and I take this opportunity to express my thanks to them for the efficient and conscientious manner in which they have discharged their duties.

To the officers and employés who have been ever ready and willing to further the interests of the Asylum, I shall always be grateful. Their efficient coöperation in the management has made possible whatever success we have had in conducting the affairs of this Asylum.

To you, gentlemen of the Board of Directors, I desire to extend my sincere thanks for your uniform kindness and courtesy, appreciating, as I do, your careful consideration of all matters pertaining to the Asylum which I have thought proper to lay before you.

Respectfully submitted.

E. W. KING,
Medical Superintendent.



STATISTICAL INFORMATION.



GENERAL STATISTICS.

Number of Admissions, Recoveries, Deaths, Etc.

The following table shows the number of admissions, recoveries, discharges, deaths, elopements, number resident at close of each year, whole number treated each year, and the aggregates; also the ratio of recoveries and deaths each year, and for the whole time from December 12, 1893, to July 1, 1896:

	Dec. 12, 1893, to July 1, 1894.	July 1, 1894, to July 1, 1895.	July 1, 1895, to July 1, 1896.
Admissions	237	182	192
Returned escapes	0	0	4
Recoveries	13	63	74
Discharges uncured	1	7	13
Deaths	7	27	45
Escapes	0	4	4
Number resident at close of each year	215	296	355
Whole number treated	237	397	492
Increase	215	81	59
Per cent of recoveries to admissions .....	.55	34.62	38.54
Per cent of deaths on number treated	2.95	6.80	9.15

REPORT OF THE MEDICAL SUPERINTENDENT.

FOR THE YEAR ENDING JUNE 30, 1895.

To the Honorable Board of Directors of the Mendocino Asylum:

GENTLEMEN: I herewith submit to you my annual statistical report for the year ending June 30, 1895.

ANNUAL SUMMARY.

Showing the Number of Patients in the Asylum June 30, 1894, Number Admitted, Number under Care and Treatment, Number Discharged, Died, and Eloped during the Year, and the Number Remaining in the Asylum June 30, 1895.

From June 30, 1894, to June 30, 1895.	Males.	Females.	Total.
Number of patients June 30, 1894.....	174	41	215
Number admitted during the year.....	136	46	182
Whole number under care and treatment.....	310	87	397
Number discharged recovered.....	41	22	63
Number discharged improved.....	3	1	4
Number discharged unimproved.....	1	0	1
Number discharged not insane.....	2	0	2
Number died.....	19	8	27
Number eloped.....	4	0	4
Number discharged, died, and eloped.....	70	31	101
Number remaining June 30, 1895.....	240	56	296

TABLE I.

Counties from which 182 Patients were Committed from July 1, 1894, to July 1, 1895.

Counties.	Males.	Females.	Total.
Alameda.....	12	10	22
Del Norte.....	1	0	1
Lake.....	1	1	2
Mendocino.....	10	2	12
Monterey.....	1	0	1
Marin.....	6	0	6
San Francisco.....	86	30	116
Santa Clara.....	1	0	1
Sonoma.....	16	3	19
Siskiyou.....	2	0	2
Totals.....	136	46	182

TABLE II.

Nativity of 182 Patients Admitted from July 1, 1894, to July 1, 1895.

Nativity.	Males.	Females.	Total.
Colorado	0	1	1
California	15	6	21
Connecticut	1	1	2
Iowa	2	0	2
Illinois	1	0	1
Kentucky	1	0	1
Massachusetts	1	1	2
Maryland	1	0	1
Maine	1	0	1
Missouri	4	0	4
Mississippi	1	0	1
New York	1	1	2
Nevada	0	1	1
Ohio	2	1	3
Oregon	1	0	1
Pennsylvania	2	0	2
Tennessee	1	0	1
Vermont	1	0	1
Virginia	1	0	1
Washington	1	0	1
United States	14	6	20
Totals	52	18	70
Unknown	8	2	10
Azores Islands	2	1	3
Armenia	1	0	1
British Columbia	1	0	1
Bohemia	1	0	1
Chili	1	0	1
China	7	0	7
Denmark	3	1	4
England	3	2	5
Finland	2	0	2
France	3	3	6
Germany	19	2	21
Greece	1	0	1
Ireland	13	12	25
Italy	5	0	5
Norway	3	0	3
New Zealand	0	1	1
Portugal	0	1	1
Sweden	5	1	6
Switzerland	2	0	2
Wales	1	0	1
West Indies	1	0	1
Scotland	2	2	4
Totals	76	26	102

TABLE III.

Ages of 182 Patients at the Time of their Admission into the Asylum from July 1, 1894, to July 1, 1895.

Ages.	Males.	Females.	Total.
Between 10 and 20 years.....	1	1	2
Between 20 and 30 years.....	31	17	48
Between 30 and 40 years.....	38	13	51
Between 40 and 50 years.....	35	10	45
Between 50 and 60 years.....	9	4	13
Between 60 and 70 years.....	7	1	8
Between 70 and 80 years.....	2	0	2
Between 80 and 90 years.....	1	0	1
Unknown.....	12	0	12
Totals.....	136	46	182

TABLE IV.

Supposed Causes of Insanity in 182 Patients, as Stated in Commitments, from July 1, 1894, to July 1, 1895.

Supposed Causes.	Males.	Females.	Total.
Anxiety for employment.....	0	1	1
Alcoholism.....	3	1	4
Apoplexy.....	1	0	1
Business troubles.....	1	1	2
Climacteric hysteria.....	0	1	1
Confinement.....	0	1	1
Destructive catarrh of nasal passages.....	1	0	1
Disappointment and overwork.....	1	0	1
Epilepsy.....	3	1	4
Family troubles.....	0	1	1
Fracture of skull in forehead.....	1	0	1
Grief over death of mother.....	0	1	1
Head injury.....	1	0	1
Hereditary.....	1	3	4
Hysteria.....	0	1	1
Injury to ear received in the war.....	1	0	1
Injury and malnutrition.....	1	0	1
Inguinal hernia.....	1	0	1
Keeley cure.....	1	0	1
La grippe.....	2	0	2
Loss of work and head injury.....	1	0	1
Loss of near relative.....	0	1	1
Masturbation.....	16	2	18
Morphine and cocaine habit.....	2	0	2
Mental overwork.....	1	0	1
Menopause.....	0	1	1
Money troubles.....	1	0	1
Overwork.....	2	0	2
Opium.....	1	0	1
Recurrent.....	1	0	1
Religion.....	2	0	2
Result of operation and chloroform.....	0	1	1
Solitude and too much religion.....	1	0	1
Syphilis.....	1	0	1
Senility, loss of relatives and property.....	1	0	1
Study.....	1	0	1
Salvation Army.....	0	1	1
Worrimont.....	0	1	1
Unknown.....	86	27	113
Totals.....	136	46	182

TABLE V.

Class of Insanity of 182 Patients, as Stated in Commitments, from July 1, 1894, to July 1, 1895.

Class.	Males.	Females.	Total.
Dementia	7	2	9
Epileptic	1	1	2
Hysteria	0	1	1
Impairment of intellect	1	0	1
Mania	19	9	28
Mania, recurrent	5	1	6
Mania, emotional	1	0	1
Melancholia	12	4	16
Monomania	4	0	4
Paralysis	1	0	1
Satyriasis	1	0	1
Unknown	84	28	112
Totals	136	46	182

TABLE VI.

Civil Condition of Patients Admitted from July 1, 1894, to July 1, 1895.

Civil Condition.	Males.	Females.	Total.
Married	33	23	56
Single	79	15	94
Widows		6	6
Widowers	6		6
Unknown	18	2	20
Totals	136	46	182

TABLE VII.

Occupations of 182 Patients Admitted from July 1, 1894, to July 1, 1895.

Occupation.	Males.	Females.	Total.
Architect.....	1	0	1
Broker.....	1	0	1
Blacksmith.....	2	0	2
Bookkeeper.....	1	0	1
Barkeeper.....	2	0	2
Baker.....	2	0	2
Capitalist.....	1	0	1
Carpenter.....	3	0	3
Clerk.....	5	0	5
Cook.....	6	0	6
Cow-milker.....	1	0	1
Cigarmaker.....	1	0	1
Dairyman.....	5	0	5
Domestic.....	0	2	2
Engineer.....	2	0	2
Fruitseller.....	1	0	1
Fisherman.....	1	0	1
Farmer.....	4	0	4
Grainbroker.....	1	0	1
Gripman.....	1	0	1
Housekeeper.....	0	5	5
Housemaid.....	0	1	1
Housewife.....	0	18	18
Janitor.....	1	0	1
Laborer.....	26	0	26
Lady's maid.....	0	1	1
Laundryman.....	1	0	1
Letter-carrier.....	1	0	1
Mason.....	1	0	1
Miner.....	2	0	2
Musician.....	1	0	1
Merchant.....	2	0	2
Machinist.....	2	0	2
Millman.....	1	0	1
No occupation.....	4	2	6
Nurse.....	0	1	1
Publisher.....	1	0	1
Printer.....	1	0	1
Peddler.....	1	0	1
Painter.....	2	0	2
Plumber.....	1	0	1
Real estate agent.....	0	1	1
Soldier.....	1	0	1
Stenographer.....	1	0	1
Student.....	1	0	1
Sailor.....	5	0	5
Servant.....	1	1	2
Sewing-machine agent.....	1	0	1
Specialty actor.....	1	0	1
Soda water manufacturer.....	1	0	1
Shoemaker.....	1	0	1
Tailor.....	2	0	2
Teamster.....	1	0	1
Teacher of penmanship.....	1	0	1
Tie-maker.....	1	0	1
Theatrical employé.....	1	0	1
Unknown.....	23	14	37
Woodsman.....	2	0	2
Windowcleaner.....	1	0	1
Waiter.....	1	0	1
Wine-cellar keeper.....	1	0	1
Totals.....	136	46	182

TABLE VIII.

Causes of Death of 27 Patients from July 1, 1894, to July 1, 1895.

Date, and Cause of Death.	Age.	Males.	Females.
1894.			
July Exhaustion from chronic brain disease	56	0	1
Hemorrhage of the bowels	36	1	0
August Organic disease of the brain	32	1	0
General paresis	46	1	0
General paresis	45	0	1
Old age	90	0	1
September.. Exhaustion from brain disease	68	1	0
Aneurism of the aorta	56	1	0
Exhaustion following dementia	75	1	0
General paresis	59	0	1
October Organic disease of the brain	52	0	1
November .. General paresis	40	0	1
General paresis	38	1	0
December .. Congestion of the lungs	65	1	0
General paresis	49	1	0
1895.			
January Exhaustion from acute mania	51	1	0
February ... Disease of stomach	40	1	0
Consumption	27	0	1
March General paresis	40	1	0
General paresis	63	1	0
April Exhaustion from organic disease of brain	75	1	0
May General paresis	42	1	0
Consumption	31	1	0
June Dilatation of the heart	70	1	0
Abscess of lung	32	1	0
Exhaustion from organic disease of brain	40	0	1
Fatty degeneration of the heart	40	1	0
Totals		19	8

TABLE IX.

Recapitulation of Causes of Death of 27 Patients from July 1, 1894, to July 1, 1895.

Causes of Death.	Males.	Females.	Total.
Aneurism of the aorta	1	0	1
Abscess of lung	1	0	1
Consumption	1	1	2
Congestion of the lungs	1	0	1
Disease of stomach	1	0	1
Dilatation of the heart	1	0	1
Exhaustion following dementia	1	0	1
Exhaustion from brain disease	2	2	4
Exhaustion from acute mania	1	0	1
Fatty degeneration of the heart	1	0	1
General paresis	6	3	9
Hemorrhage of the bowels	1	0	1
Old age	0	1	1
Organic disease of the brain	1	1	2
Totals	19	8	27

TABLE X.

Articles Made in Sewing-Room from July 1, 1894, to July 1, 1895.

Articles.	Number.	Articles.	Number.
Aprons, white	132	Night dresses	72
Aprons, colored	91	Pillow slips, white	341
Anklets, canvas	20	Pillow slips, colored	273
Awnings, window	7	Pillow ticks	87
Bedticks	20	Restraint jackets	15
Bags, assorted	30	Restraint strings, dozens	12
Bedspreads (hemmed)	41	Sunbonnets	18
Blankets, canvas	8	Sheets	167
Bolster cases	2	Skirts	51
Chemises	62	Shrouds	32
Curtains, pantry	34	Suspenders	73
Coffin pillows	31	Surrey cover	1
Corsets	2	Table cloths	24
Caps	1	Towels, bath	291
Dresses	117	Towels, roller	238
Dress waists	4	Towels, dish	513
Drawers	76	Towels, toilet (hemmed)	316
Napkins (hemmed)	60		

REPORT OF THE MEDICAL SUPERINTENDENT.

FOR THE YEAR ENDING JUNE 30, 1896.

To the Honorable Board of Directors of the Mendocino Asylum:

GENTLEMEN: I herewith submit to you my annual statistical report for the year ending June 30, 1896:

ANNUAL SUMMARY.

Showing the Number of Patients in the Asylum June 30, 1895, Number Admitted, Number under Care and Treatment, Number Discharged, Died, and Eloped during the Year, and the Number Remaining in the Asylum June 30, 1896.

From June 30, 1895, to June 30, 1896.	Males.	Females.	Total.
Number of patients June 30, 1895	240	56	296
Number admitted during year	150	42	192
Number of returned escapes	4	0	4
Whole number under care and treatment.....	394	98	492
Number discharged recovered.....	57	17	74
Number discharged improved.....	4	3	7
Number discharged unimproved	2	2	4
Number discharged not insane.....	2	0	2
Number transferred to Agnews Asylum.....	0	1	1
Number died	40	5	45
Number eloped	4	0	4
Number discharged, died, eloped, etc.	109	28	137
Number remaining June 30, 1896	285	70	355

TABLE I.

Counties from which 192 Patients were Committed from July 1, 1895, to July 1, 1896.

Counties.	Males.	Females.	Total.
Alameda	11	12	23
Del Norte	2	0	2
Lake	3	1	4
Marin	9	1	10
Mendocino	12	1	13
San Francisco.....	101	22	123
Sonoma	12	5	17
Totals	150	42	192

TABLE II.

Nativity of 192 Patients Admitted from July 1, 1895, to July 1, 1896.

Nativity.	Males.	Females.	Totals.
California	27	7	34
Illinois	2	0	2
Kansas	0	1	1
Kentucky	2	1	3
Louisiana	1	0	1
Massachusetts	2	0	2
Missouri	1	0	1
Maryland	1	0	1
Michigan	1	1	2
New York	6	0	6
Ohio	0	2	2
Oregon	1	0	1
Pennsylvania	2	3	5
Vermont	0	1	1
Virginia	1	0	1
Wisconsin	1	2	3
United States	16	5	21
Totals	64	23	87
Unknown	9	1	10
Azores Islands	0	1	1
Australia	1	0	1
Austria	1	0	1
Asia Minor	1	0	1
Canada	2	0	2
China	9	0	9
Denmark	1	0	1
England	7	2	9
Finland	3	0	3
France	3	2	5
Germany	16	1	17
Ireland	13	6	19
Italy	5	0	5
Mexico	0	1	1
New Zealand	1	0	1
Norway	4	1	5
Nova Scotia	2	0	2
Russia	1	1	2
Sweden	4	2	6
Switzerland	2	1	3
Western Islands	1	0	1
Totals	77	18	95

TABLE III.

Ages of 192 Patients at the Time of their Admission into the Asylum, from July 1, 1895, to July 1, 1896.

Ages.	Males.	Females.	Total.
Between 10 and 20 years	5	1	6
Between 20 and 30 years	36	9	45
Between 30 and 40 years	47	13	60
Between 40 and 50 years	27	10	37
Between 50 and 60 years	13	2	15
Between 60 and 70 years	4	4	8
Between 70 and 80 years	6	1	7
Between 80 and 90 years	1	1	2
Unknown	11	1	12
Totals	150	42	192

TABLE IV.

Supposed Causes of Insanity in 192 Patients, as Stated in Commitments, from July 1, 1895, to July 1, 1896.

Supposed Causes.	Males.	Females.	Total.
Alcoholism	5	0	5
Alcoholism and masturbation	4	0	4
Climacteric period	0	2	2
Cocaine abuse	3	0	3
Domestic troubles	0	2	2
Diabetes	1	0	1
Epilepsy	2	0	2
From childbirth	0	2	2
* Fall from church steeple	1	0	1
General anæmic condition	0	1	1
Hereditary	1	0	1
Head injury	2	0	2
Inheritance and privation	1	0	1
Lues	1	0	1
Lung trouble	1	0	1
Land troubles	1	0	1
Menopause	0	1	1
Morphine	3	0	3
Masturbation	22	0	22
Overwork	3	1	4
Phthisis pulmonalis	1	0	1
Poor general health	1	0	1
Recurrent mania	1	0	1
Softening of the brain	1	0	1
Sunstroke	1	0	1
Syphilis	1	0	1
Senile paralysis	1	0	1
Worry over money matters	1	0	1
Worrimment	0	1	1
Unknown	91	32	123
Totals	150	42	192

TABLE V.

Class of Insanity of 192 Patients, as Stated in Commitments, from July 1, 1895, to July 1, 1896.

Class.	Males.	Females.	Total.
Dementia	13	1	14
Epilepsy	1	0	1
Mania	9	7	16
Mania, recurrent	4	2	6
Melancholia	14	7	21
Monomania	2	3	5
Nymphomania	0	1	1
Unknown	107	21	128
Totals	150	42	192

TABLE VI.

Civil Condition of 192 Patients Admitted from July 1, 1895, to July 1, 1896.

Civil Condition.	Males.	Females.	Total.
Divorced	1	0	1
Married	21	14	35
Single	102	17	119
Widows		8	8
Widowers	13		13
Unknown	13	3	16
Totals	150	42	192

TABLE VII.

Occupations of 192 Patients Admitted from July 1, 1895, to July 1, 1896.

Occupation.	Males.	Females.	Total.
Actor	1	0	1
Barkeeper	5	0	5
Blacksmith	1	0	1
Bookkeeper	2	0	2
Baker	1	0	1
Bootblack	1	0	1
Brakeman	1	0	1
Cabinet-maker	2	0	2
Cook	5	4	9
Clerk	6	0	6
Collector	1	0	1
Carpenter	3	0	3
Domestic	0	2	2
Dairyman	2	0	2
Dishwasher	2	0	2
Drummer	1	0	1
Dressmaker	0	2	2
Electrician	1	0	1
Fortune-teller	0	1	1
Farmer	9	0	9
Fireman	3	0	3
Horseshoer	1	0	1
Horse jockey	1	0	1
Housewife	0	10	10
Housekeeper	0	5	5
Householder	0	1	1
Laborer	33	0	33
Lodging-house keeper	1	0	1
Letter-carrier	1	0	1
Mechanic	1	0	1
Minister	1	0	1
Merchant	1	0	1
Night clerk	1	0	1
No occupation	15	5	20
Piano teacher	0	1	1
Porter	2	0	2
Painter	1	0	1
Printer	1	0	1
Physician	1	0	1
Pauper	1	0	1
Plasterer	1	0	1
Servant	0	3	3
Sailor	5	0	5
Shoemaker	2	0	2
Shipbuilder	1	0	1
Silver-plater	1	0	1
Shipping-clerk	1	0	1
Seamstress	0	1	1
Teamster	3	0	3

TABLE No. VII.—Continued.

Occupation.	Males.	Females.	Total.
Tea-peddler	1	0	1
Tinner	1	0	1
Tailor	4	0	4
Tanner	1	0	1
Unknown	17	7	24
Waiter	1	0	1
Washman	1	0	1
Woodsman	1	0	1
Totals	150	42	192

TABLE VIII.

Causes of Death of 45 Patients from July 1, 1895, to July 1, 1896.

Date, and Cause of Death.	Age.	Males.	Females.
1895.			
July			
Exhaustion from brain disease	49	1	0
Exhaustion from brain disease	74	1	0
Exhaustion from acute mania	26	1	0
Old age	87	1	0
Consumption	46	1	0
August			
Congestion of the lungs	34	0	1
Exhaustion from brain disease	53	1	0
September			
General paresis	35	1	0
Inanition due to chronic disease of stomach	39	1	0
General paresis	41	1	0
Exhaustion from chronic brain disease	51	1	0
Consumption	34	1	0
October			
Senile dementia	78	1	0
Senile dementia	66	1	0
General paresis	46	1	0
November			
Internal hemorrhage	47	1	0
Exhaustion from chronic brain disease	63	1	0
Hydro-thorax	47	1	0
December			
Exhaustion from chronic brain disease	35	1	0
Cerebral hemorrhage	31	1	0
Epilepsy	19	1	0
Exhaustion from chronic brain disease	40	1	0
General paresis	57	1	0
1896.			
January			
General paresis	58	1	0
Epilepsy	44	1	0
February			
Exhaustion from chronic brain disease	36	0	1
March			
Congestion of the brain	50	0	1
General paresis	32	1	0
Exhaustion from chronic brain disease	53	1	0
General paresis	36	1	0
April			
General paresis	38	1	0
Exhaustion from specific blood-poisoning	26	1	0
Exhaustion from chronic brain disease	24	1	0
Consumption	25	1	0
Exhaustion from chronic brain disease	76	1	0
Atheroma of the cerebral arteries	67	0	1
May			
Exhaustion from chronic brain disease	65	1	0
Exhaustion from chronic brain disease	18	1	0
Exhaustion from chronic brain disease	44	1	0
General paresis	56	1	0
Cerebral hemorrhage	0	1	0
Disease of the bladder	71	1	0
June			
Meningitis	31	0	1
Exhaustion from chronic brain disease	67	1	0
Exhaustion from chronic brain disease	30	1	0
Total		40	5

TABLE IX.

Recapitulation of Causes of Death of 45 Patients from July 1, 1895, to July 1, 1896.

Causes of Death.	Males.	Females.	Total.
Atheroma of the cerebral arteries	0	1	1
Consumption	3	0	3
Congestion of the lungs	0	1	1
Congestion of the brain	0	1	1
Cerebral hemorrhage	2	0	2
Disease of the bladder	1	0	1
Exhaustion from chronic brain disease	15	1	16
Exhaustion from acute mania	1	0	1
Exhaustion from specific blood-poisoning	1	0	1
Epilepsy	2	0	2
General paresis	9	0	9
Hydro-thorax	1	0	1
Inanition due to chronic disease of stomach	1	0	1
Internal hemorrhage	1	0	1
Meningitis	1	1	1
Old age	1	0	1
Senile dementia	2	0	2
Totals	40	5	45

TABLE X.

Articles Made in Sewing-Room from July 1, 1895, to July 1, 1896.

Articles.	Number.	Articles.	Number.
Aprons, white	88	Jackets, restraint	17
Aprons, colored	104	Napkins (hemmed)	12
Bedspreads (hemmed)	115	Night dresses	30
Bedticks	46	Pillow slips, white	93
Bonnets, sun	20	Pillow slips, colored	319
Bags, canvas	2	Pillow ticks	106
Blankets, canvas	1	Sheets	406
Chemises	81	Skirts	98
Collars	8	Shrouds	35
Cuffs, pairs	4	Suspenders, pairs	76
Coffin pillows	43	Table cloths	5
Curtains	6	Towels, bath	442
Dresses	91	Towels, roller	115
Dress waists	22	Towels, dish	483
Drawers, male, pairs	222	Undershirts, male	195
Drawers, female, pairs	44	Waiver coats	12
Holders for laundry irons	48		

STEWARD'S REPORT.

FOR THE YEAR ENDING JUNE 30, 1895.

TABLE I.

Amount of Articles Purchased and Consumed, and Other Expenses, for the Fiscal Year ending June 30, 1895.

Articles.	Value.	Articles.	Value.
Flour	\$1,838 28	Brooms and brushes	\$155 99
Meat	3,064 04	Books and stationery	90 63
Sugar	989 97	Gasoline	870 65
Tea	111 36	Fuel	2,945 81
Syrup	120 80	Paints, oils, and glass	353 86
Potatoes	384 37	Bedding	547 41
Butter	1,886 28	Castings and iron pipe	61 47
Chicory and coffee	278 26	Miscellaneous	98 43
Lard	58 80	Payroll	30,958 70
Fish	448 45	Milk	1,229 38
Poultry and eggs	449 71	Directors' salary	2,384 20
Beans	98 13	Freight and express	548 81
Rice and cracked wheat	294 43	Pickles	36 44
Corn and oatmeal	289 47	Telegraphing	46 48
Fruit	371 89	Clay pipes	7 67
Salt	46 28	Matches	38 11
Vinegar	39 94	Tallow	125 00
Small groceries	428 15	Laundry starch	25 25
Soap	233 59	Caustic soda	72 25
Drugs	954 17	Hops and malt	41 37
Liquors	51 15	Portland cement	97 75
Tobacco	597 97	Horseshoeing and bl'ksmithing	168 17
Dry goods	888 85	Advertising for supplies	334 00
Clothing and hats	1,220 59	Sewer pipe	1,121 73
Shoes and leather	412 58	Ward locks and keys	161 45
Blankets	623 82	Repairing gas machine and plastering	44 10
Furniture and crockery	652 19	Labor, painting wards	86 65
Hardware and tinware	1,649 28	Drain tile	16 50
Spoons and cutlery	92 25	Repairing cement floor in basement	132 50
Carpeting and matting	23 10	Two work horses	160 00
Grain and feed	185 99		
Garden tools and seeds	286 74		
Lumber	1,049 04		
Building materials and repairs	647 85	Total	\$63,728 53

TABLE II.

Cost of the Different Departments for the Fiscal Year ending June 30, 1895.

Departments.	Cost.	Departments.	Cost.
Kitchen and dining-rooms	\$10,575 12	Office	\$137 74
Male department	2,337 65	Payroll	30,958 70
Female department	190 65	Carpenter shop	590 51
Bakery	2,094 72	Laundry building	7 41
Laundry	272 73	Grounds	8 15
Engine-room	201 60	Gas	871 50
Farm, garden, dairy, and stable	831 65	Directors' salary	2,384 20
Fuel	2,940 81	Paint shop	270 43
Building and repairs	598 12	Tin shop	17 60
Miscellaneous	896 49	Shoe shop	53 07
Drug store	1,013 88	Advertising	334 00
Sewing-room	477 45	Poultry	11 83
Furnishing	5,453 76		
Administration building	198 76	Total	\$63,728 53

TABLE III.

Disbursements for the Fiscal Year ending June 30, 1895.

For What Purpose.	Amount.
Maintenance	\$58,274 77
Furnishing	5,453 76
Total	\$63,728 53

TABLE IV.

Averages for the Fiscal Year ending June 30, 1895.

Month.	Average Number of Patients Daily.	Average Daily Expense.	Average Cost per Capita per Day.	Average Cost per Capita per Month.
1894—July	220	\$130 31	\$0 59 $\frac{2}{10}$	\$18 36
August	223	141 93	63 $\frac{1}{10}$	19 73
September	233	143 94	61 $\frac{1}{10}$	18 53
October	251	146 38	58 $\frac{3}{10}$	18 07
November	256	163 89	64 $\frac{1}{10}$	19 20
December	259 $\frac{1}{2}$	192 71	74 $\frac{2}{10}$	23 02
1895—January	269	156 43	58 $\frac{1}{10}$	18 02
February	272 $\frac{1}{2}$	160 10	58 $\frac{1}{10}$	17 62
March	277	171 71	61 $\frac{9}{10}$	18 59
April	280	174 00	62 $\frac{1}{10}$	18 64
May	289	153 32	53	15 91
June	290	180 27	62 $\frac{1}{10}$	18 64
Yearly averages	260	\$159 58	\$0 61 $\frac{4}{10}$	\$18 69

TABLE V.

Products of the Farm and Garden for the Fiscal Year ending June 30, 1895.

Articles.	Amount.	Articles.	Amount.
Apples Pounds	401	Lard furnished Asy-	
Artichokes Dozens	135	lum Pounds	485
Asparagus Pounds	330	Melons, water Number	66
Beans, string Pounds	2,175	Onions Pounds	13,920
Beets, table Pounds	5,570	Parsnips Pounds	3,490
Brussels sprouts Pounds	840	Pears Pounds	2,246
Cabbage Pounds	25,577	Peas Pounds	2,354
Carrots Pounds	10,394	Peppers, green Pounds	337
Celery Pounds	161	Potatoes Pounds	32,823
Corn, green Dozens	499	Peaches Pounds	762
Cucumbers Dozens	510	Pork furnished Asy-	
Eggs furnish'd Asylum Dozens	200	lum Pounds	2,436
Hay Tons	45	Radishes Pounds	502
Hogs sold Value	\$234 16	Rhubarb Pounds	160
Hams (cured) furnished		Squash Pounds	2,700
Asylum Pounds	280	Strawberries Pounds	190
Horseradish Pounds	94	Tomatoes Pounds	10,344
Leeks Dozens	153	Turnips Pounds	6,977
Lettuce Pounds	2,556	Wood Cords	60

STEWARD'S REPORT.

FOR THE YEAR ENDING JUNE 30, 1896.

TABLE I.

Amount of Articles Purchased and Consumed, and Other Expenses, for the Fiscal Year ending June 30, 1896.

Articles.	Value.	Articles.	Value.
Flour	\$1,622 23	Carpeting and matting	\$136 40
Meat	3,008 84	Grain and feed	201 87
Sugar	876 84	Garden tools and seeds	157 66
Tea	151 15	Lumber	909 51
Syrup	170 37	Building materials and repairs	212 92
Potatoes	532 06	Brooms and brushes	133 71
Butter	1,540 46	Books and stationery	77 92
Coffee and chicory	416 79	Gasoline	955 20
Lard	11 61	Fuel	3,800 55
Fish	479 53	Paints, oils, and glass	166 52
Poultry and eggs	404 47	Bedding	776 41
Beans	226 46	Castings and iron pipe	288 41
Rice and cracked wheat	261 85	Miscellaneous	568 29
Corn and oatmeal	203 52	Horseshoeing and blacksmith-	
Canned and dried fruit	382 97	ing	207 00
Salt	41 38	Piano	525 00
Vinegar	32 62	Set of meteorological instru-	
Small groceries	603 45	ments	69 00
Tallow	29 00	Set of medical books	69 00
Advertising	428 00	Farm wagon	116 25
Soap	248 28	Marble slab for morgue	40 00
Drugs	592 12	Material for patent water-closets	45 00
Liquors	34 42	Set of surgical instruments	38 00
Tobacco	644 15	Ward padlocks	34 50
Dry goods	849 85	Payroll	33,015 72
Clothing and hats	894 89	Milk	1,465 39
Shoes and leather	528 00	Directors' salary	870 92
Blankets	1,013 15	Freight and express	436 76
Furniture and crockery	1,234 41	Telegraphing	44 80
Hardware and tinware	925 01		
Spoons and cutlery	14 40	Total	\$63,864 99

TABLE II.

Cost of the Different Departments for the Fiscal Year ending June 30, 1896.

Departments.	Cost.	Departments.	Cost.
Kitchen and dining-rooms	\$11,009 08	Office	\$178 82
Male department	2,267 52	Payroll	33,015 72
Female department	205 40	Permanent improvements	1,322 44
Bakery	1,641 49	Laundry building	11 87
Laundry	161 16	Freight	358 56
Engine-room	137 01	Express and telegraphing	122 21
Farm, garden, and stable	843 39	Paint shop	99 11
Expense of administration	870 92	Shoe shop	54 60
Building and repairs	173 88	Carpenter shop	340 37
Miscellaneous	142 94	Advertising	428 00
Drugstore	640 46	Gasoline	955 20
Sewing-room	660 22	Fuel	3,800 55
Furnishing	4,226 71		
Administration building	197 36	Total	\$63,864 99

TABLE III.

Disbursements for the Fiscal Year ending June 30, 1896.

For What Purpose.	Amount.
Maintenance.....	\$58,315 84
Furnishing, and permanent improvements.....	5,549 15
Total.....	\$63,864 99

TABLE IV.

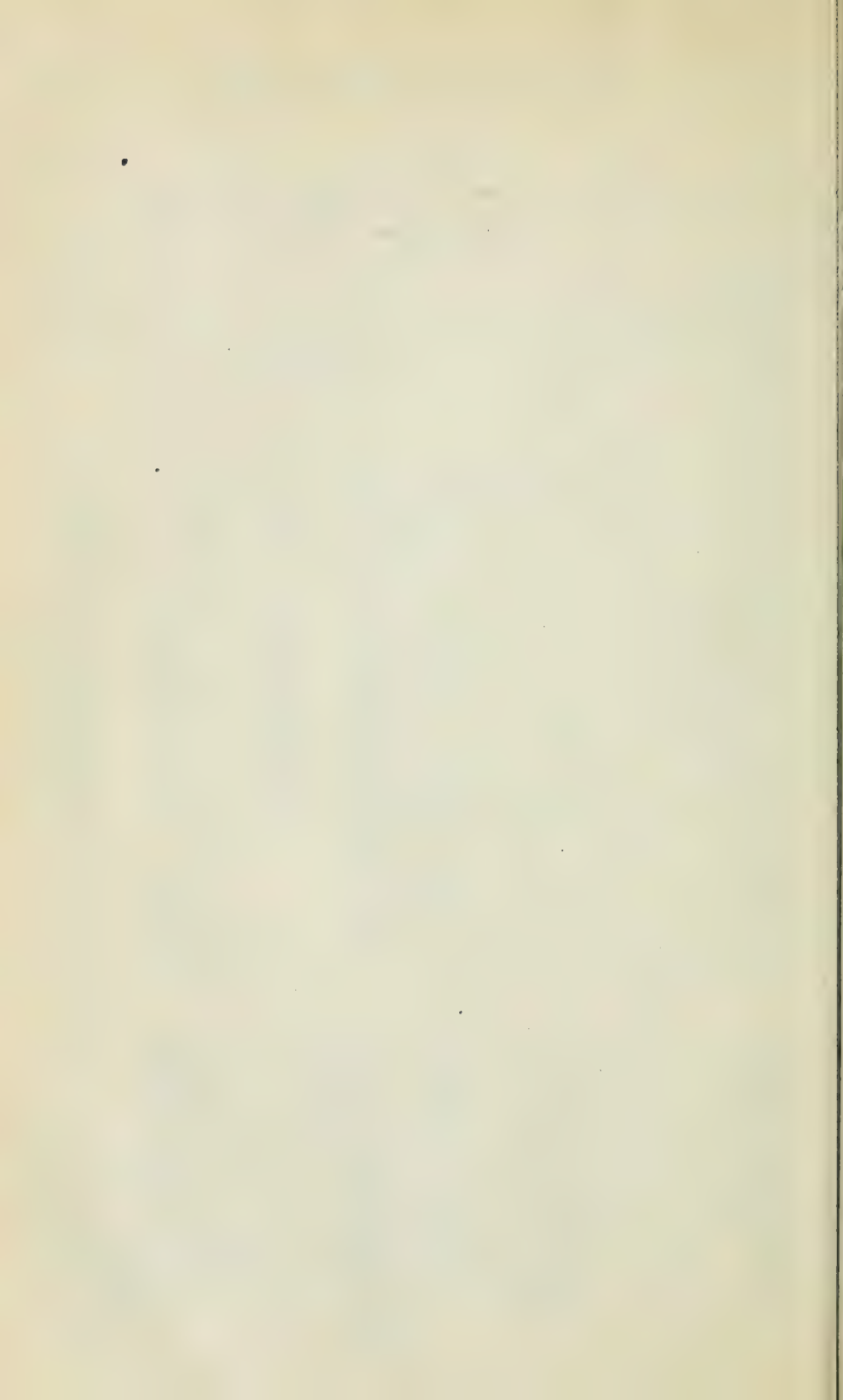
Averages for the Fiscal Year ending June 30, 1896.

Months.	Average Number of Patients Daily.	Average Daily Expense.	Average Cost per Capita per Day.	Average Cost per Capita per Month.
1895—July.....	299	\$131 66	\$0 44	\$13 64
August.....	302 ⁴ / ₁₀	154 73	51 ¹ / ₁₀	15 84
September.....	309 ⁷ / ₁₀	163 92	52 ³ / ₁₀	15 87
October.....	313 ⁴ / ₁₀	157 76	50 ³ / ₁₀	15 59
November.....	314 ³ / ₁₀	174 03	55 ³ / ₁₀	16 59
December.....	314 ⁷ / ₁₀	164 75	52 ³ / ₁₀	16 21
1896—January.....	312 ⁴ / ₁₀	154 39	49 ⁴ / ₁₀	15 31
February.....	315 ⁴ / ₁₀	169 48	53 ⁷ / ₁₀	15 57
March.....	321 ¹ / ₁₀	162 57	50 ¹ / ₁₀	15 65
April.....	330 ⁷ / ₁₀	169 11	51 ¹ / ₁₀	15 33
May.....	341 ² / ₁₀	153 71	45	13 95
June.....	349 ² / ₁₀	157 37	45	13 50
Totals.....	318 ⁶ / ₁₀	\$159 45	\$0 50	\$15 25

TABLE V.

Products of the Farm and Garden for the Fiscal Year ending June 30, 1896.

Articles.	Amount.	Articles.	Amount.
Asparagus.....Pounds	99	Onions.....Pounds	6,977
Beans.....Pounds	2,260	Parsnips.....Pounds	6,892
Beets.....Pounds	2,812	Peas, green.....Pounds	2,658
Cabbage.....Pounds	13,062	Peas, dried.....Pounds	1,088
Carrots.....Pounds	17,823	Peppers, green.....Pounds	550
Cucumbers.....Dozens	276	Potatoes.....Pounds	18,699
Corn.....Dozens	620	Pork.....Pounds	8,406
Celery.....Pounds	73	Pears.....Pounds	1,500
Eggs.....Dozens	50	Rutabagas.....Pounds	676
Hay, alfalfa.....Tons	35	Radishes.....Pounds	432
Hay, oat.....Tons	45	Rhubarb.....Pounds	714
Kohl-rabi.....Pounds	663	Spinach.....Pounds	819
Lettuce.....Pounds	2,219	Strawberries.....Pounds	55
Leeks.....Pounds	188	Tomatoes.....Pounds	10,500
Lard.....Pounds	655	Turnips.....Pounds	3,912
Melons, musk.....Dozens	120	Wood.....Cords	28



BIENNIAL REPORT OF THE BOARD OF TRUSTEES

OF THE

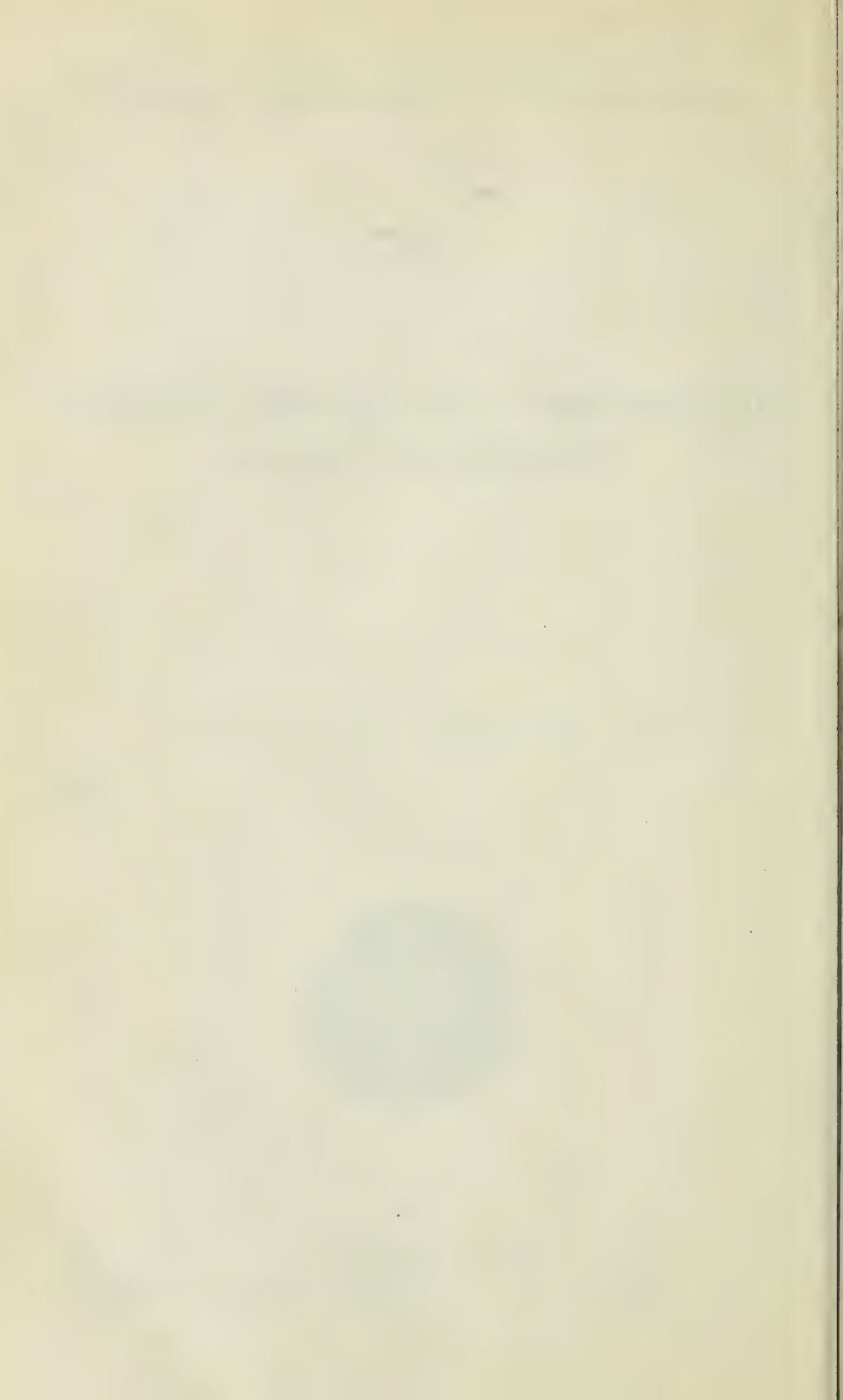
California Home for the Care and Training of
Feeble-Minded Children.

FOR THE YEARS 1895 AND 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1896.



THE CALIFORNIA HOME FOR THE
CARE AND TRAINING OF FEEBLE-MINDED CHILDREN, }
ELDRIDGE, CAL., November 13, 1896.

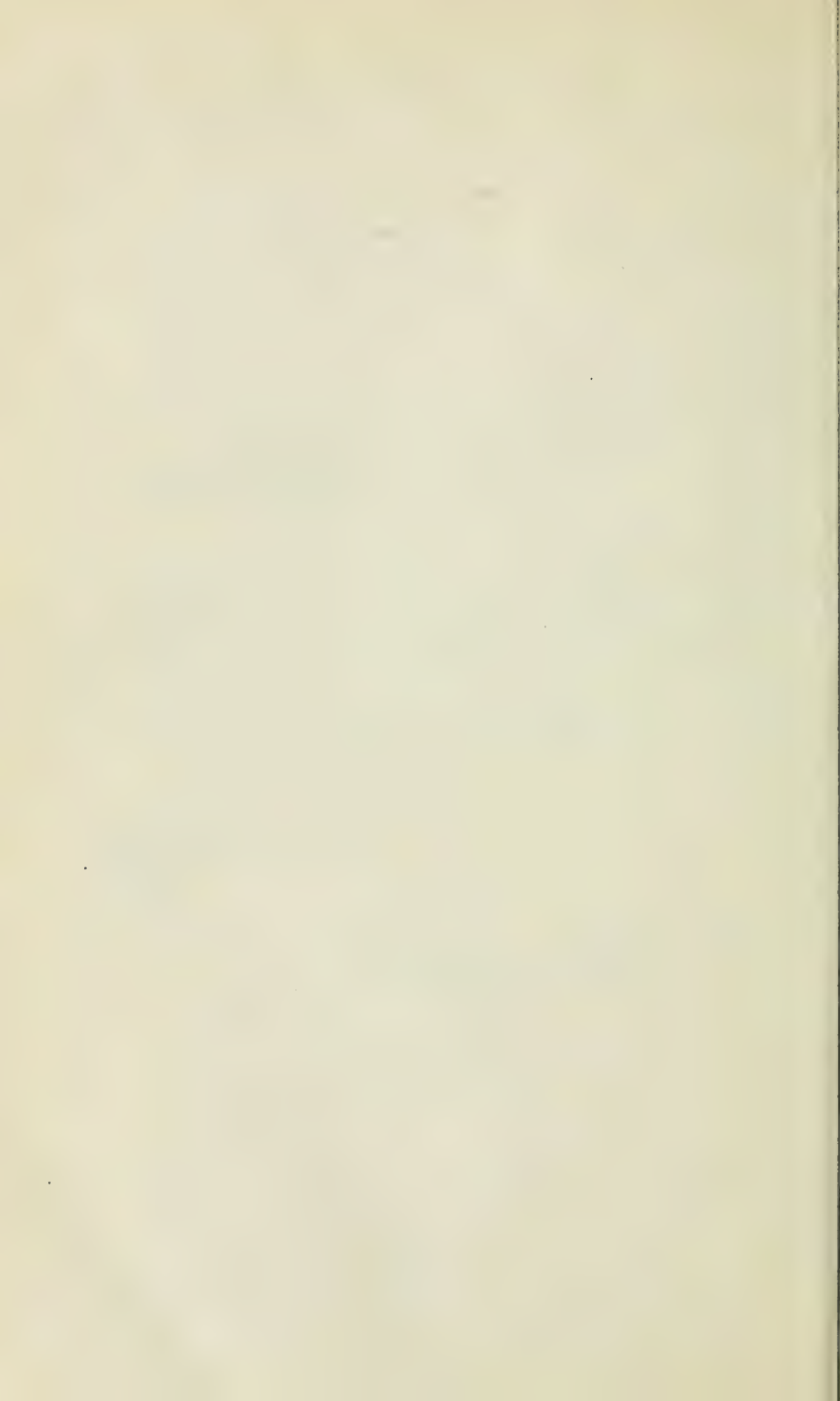
To his Excellency JAMES H. BUDD, *Governor :*

SIR : We have the honor herewith to submit our biennial report for the forty-sixth and forty-seventh fiscal years, as required by law.

In making this report we have adopted that of the Superintendent of this Institution, Dr. A. E. Osborne, as it covers all the ground required, and the recommendations therein made, and the appropriations therein asked for from the State Legislature, meet with our full approval.

(Signed:) A. P. OVERTON,
President,
R. R. REIBENSTEIN,
Trustee,
Committee.

WM. P. EDWARDS,
Secretary Board of Trustees.



REPORT OF THE SUPERINTENDENT.

To the Board of Trustees of the California Home for the Care and Training of Feeble-Minded Children :

GENTLEMEN: I beg to present to you herewith, in conformity to law, my annual report of the operations of my office, and of the affairs generally of the Home, for the forty-seventh State fiscal year, ending June 30, 1896. In connection therewith will be found the tables, financial and otherwise, referring to the forty-sixth State fiscal year, ending June 30, 1895. These are now complete and brought down in the manner shown for your examination, and for your reference and use in making up your own biennial report to his Excellency, the Governor.

MOVEMENT OF POPULATION.

During the biennial period referred to, July 1, 1894, to June 30, 1896, the movement of population has been as follows:

Inmate population July 1, 1894.....	303
Total admissions July 1, 1894, to June 30, 1896.....	199
	— 502
Total discharged July 1, 1894, to June 30, 1896.....	59
Total population June 30, 1896.....	443
Net gain	140
Increase July 1, 1896, to November 1, 1896.....	10
Total present population	453

A large number of applications are still on file, admission for these having been necessarily delayed because they are of grades for the reception of which the accommodations of the Home have already been exhausted.

The applications made to the Home are, as a rule, for children of the lowest grades, or else of the class of epileptics. We are compelled almost daily to explain, in accounting for our delay in admitting these children, that the State has not yet provided us with the special and separate quarters which the infirmities of such patients demand, and that the very limited accommodations set aside for them have been long overtaxed, are inadequate for the number already cared for, and that until the State does do something toward furnishing quarters for the low grade and purely custodial, we shall be compelled to limit their admission to vacancies caused by deaths and discharges.

Reference to the reports of the State Board of Health will disclose that the members of that body some years ago condemned the quarters assigned to the lower grades, and unanimously approved the writer's plea for providing suitable and not necessarily expensive separate buildings on the cottage-colony plan. As each year rolled by we have hoped to secure, in some degree at least, some such rational provision for this class. Promises have been made, plans have been laid, but without definite legislative action no results have or can follow. It is not fair that the management shall longer suffer the criticisms of the public, however well they may apply, for all this apathy on the part of the State. The State has assumed the care of these unfortunate persons, and in this enlightened age should provide enlightened care. If it does not, then it will be better for the Home to positively refuse the admission of any more low-grade cases. It will be more humane for us to care *well* for a few idiots and idio-imbeciles than to hamper our care by such continuous admissions beyond our facilities as may invite public criticism.

The problem which needs our immediate attention involved in this question is, "What shall be done with the purely custodial and idiot, as well as the epileptic feeble-minded of our State?" Perusal of the Act of Establishment would seem to show that the original intention was to provide such educational and manual training as the inmates might be capable of receiving. Section 9 of the Act states:

"The object aimed at in the Institution shall be such care, training, and educating of those received as to render them more comfortable, happy, and better fitted to care for and support themselves; to this end, the Trustees shall furnish them such agricultural and mechanical education as they may be capable of receiving, and as the facilities offered by the State will allow, including farm work, shops, and the employment of trade teachers, who may, at any time, be discharged for cause."

The work might thus be construed as being restricted to the higher grades only. The accommodations thus far provided at the Home have been for them alone; consequently, the large admixture of lower grade and epileptic cases in the Institution has resulted in the most serious interference with our school work and manual training for the first class of patients referred to, nullifying some of our best efforts, and retarding the children's advancement in many instances through their enforced association with the more hopeless cases. On the other hand, it has resulted in a sort of compromise care for the lower grades, far short of their needs. It has been that sort of expedient care which satisfies neither the public nor the management, while it places the patients under conditions unfavorable to the best results, and insures annoying misrepresentations of the Home's purposes and work.

But the relief afforded to families, especially those suffering from

straitened financial conditions, by our taking the idiotic son or daughter, whose presence has cast a shadow blacker than night across their home, is greater than my pen can describe, and means more as a charity than any tongue can express, unless its owner has personally investigated these conditions. Those children of higher grade who are mentally but a step removed from the benefits of the public school, and for whom our Institution in the main was designed as an adjunct to the public school system, are yet capable of some individual improvement, and in a measure are self-supporting along simple lines. They have a more or less limited capacity for amusement, for self-protection, and for the earning of their support. They can, in some degree, assert their rights and speak for themselves, and in a certain measure protect themselves and guard their best interests. But for the epileptic and the paralytic idiot there are none to speak, except it be those professionally interested in their care. Their presence, coupled with the awful deprivations of poverty, is a double curse upon their family, and, if it does not altogether deprive a parent of his or her wage-earning opportunities, curtails enormously their possibilities of supporting, not only the defective child, but the other and normal members of the family dependent upon them. The Home has certainly done a merciful thing to admit these low-grade patients. It would seem to me, therefore, that the only question to be considered in this connection is, how may we best continue the care of them.

It has ever been my belief, and my impressions have been given full voice on many previous occasions, that this Home should be provided with the means to care for all the custodial cases of this class in the State. It was with this idea in view that the management in the past ventured a memorable struggle for a large acreage, and carried to a successful termination a particularly active, and at times bitter, contest, to secure the removal of the Home from former inadequate quarters to the present unrivaled location. With a site and property such as the Home now possesses, the cost of the care of such patients is reduced to the lowest possible figure, while improvements now in contemplation will effect a further reduction in per capita cost to figures lower than will be possible to be reached by any other institution less favorably situated. With such an unrivaled location, and such extensive acreage, situated ideally for the best custodial care for all these classes, permitting perfect segregation and classification, adapted to the most economical and at the same time to the best professional care of these different grades, offering the isolation, the quiet, and the congenial environment so valuable a factor in their treatment, it would really seem as though we could not justly ignore the right of asylum to these long-neglected and long-suffering afflicted ones. Were we situated so that their care would necessarily interfere with the support and train-

ing of the higher and more improvable grades, the case would be different; but, possessing as we do a magnificent domain, singularly suitable for the widest division of this work and the care, without friction or special expense, of many different grades, provided the buildings were furnished us, it is difficult to see how we can ignore the plea made for their admission.

If our work is not to be allowed to expand to the extent of the demands made upon it, and, consequently, with its needs; if we are not allowed to give our patients the training, the rational care, and the benefits contemplated by our Act of Establishment, and planned for and tirelessly fought for by the management years ago, then the splendid results in securing this location, with all its latent possibilities for such grand results, are empty victories. They are hollow mockeries to the men and women who so nobly planned and so successfully executed. With anything to now interfere with the going-ahead along the lines projected, the Home must of necessity suffer a most severe setback, from which it would take years at least to rally.

The duty of the hour, it seems to me, is for your honorable Board to make now such exertion to secure the further extension of the Home upon the broad lines of the original project as may secure to us the proper accommodations for at least a majority of the cases applying. The most pressing needs of the Institution, I conceive to be, next to the extra quarters required, the more perfect equipment of our departments, so that the large family already under our care can be more easily housed and victualed and more expeditiously and more economically trained and supported. Coming more specifically to the point, I would most respectfully recommend that your honorable body urge upon the Governor and the members of the Legislature the pressing necessity of appropriations of money sufficient to procure for us, at the ensuing session, the following things :

1. COTTAGES FOR LOW-GRADE IDIOTIC CASES.

These cottages can be frame, or built from a combination of brick and frame, one and one half stories high, with storage basement, plainly but substantially built and arranged with a special regard for the comfort and the particular care required by the peculiar infirmities of the patients who may occupy them. There should be erected at once not fewer than six : three for males and three for females. Each cottage should contain not less than thirty beds, and, if built after the general designs I have already contemplated, need not cost, basing my estimate on the present ruling price of building material, more than \$2,000 each, drainage, plumbing, etc., included, ready for occupancy. Total appropriation for six cottages, \$12,000.

2. COTTAGES FOR EPILEPTICS.

There are needed at least three such cottages for females and one for males. Capacity of each, not less than thirty beds. Cost of each need not exceed \$2,000. Total appropriation required, \$8,000.

3. COTTAGES FOR CONSUMPTIVES.

There should be one for females and one for males. The allowing of consumptives to mingle indiscriminately in and among our general family is a most dangerous practice. That consumption is contagious is now admitted by all persons familiar with the disease, and as has been most unfortunately demonstrated in the Institution by the record of our cases. In the last (1896) annual report of the State Board of Health, will be found a paper which I prepared for that body upon the facilities for the treatment of contagious and infectious diseases in the public institutions of California. In it will be found special data referring to the presence of consumptives and the contagiousness of the disease. After giving statistics from the various State institutions, I have the following to say of our own :

“At Eldridge we have, practically, no facilities for the treatment of these diseases by seclusion or isolation. We have, as the above infers, no hospital building, nor yet wards that might be devoted to hospital work. The different departments of the Home are overcrowded to a degree that well demonstrates the inferiority of the present style of State institution buildings and extension over the cottage system of care. The sick are necessarily cared for in their own beds, wherever these may happen to be, with, of course, such extra attentions to privacy as a screen around the bed, or some such appliance, can secure in the dormitories.

“A very large percentage of our patients, particularly those admitted during the past two years, are of the lower grades, mentally and physically. Coupled to their mental defects, sometimes as the cause, sometimes as the complicating concomitant, are the commoner hereditary constitutional disorders. Out of an inmate population of 440, we have at least ten per cent suffering from pulmonary consumption in some stage or another, or exhibiting tubercular, glandular, and scrofulous infection. During the past ten years of my management of this Institution, I have seen this percentage rise from less than one per cent to its present rather alarming figure. As the Home grew, the influx of patients outgrew their quarters, thus producing an unfortunate overcrowding, with all its attendant evil results to health. The admission of a few cases of pronounced consumptives did the work for us. Lacking the barest requisites for their rational care; handicapped in more ways than I would like to disclose in a paper such as this, I have been compelled

to be an unwilling witness to the manifest dangers involved in the unrestricted commingling of these consumptives with our other and healthier patients. To a student, the field has been most fertile of results and rich in clinical demonstrations. I have had demonstrated to my entire satisfaction—yea, to my unspeakable sorrow and distress—the contagiousness of consumption under such conditions.

“I believe these dangers constitute a standing menace in all our public institutions. I cannot believe that there is less danger from the intermingling of consumptives with the insane, the criminal, or any other class, than with the feeble-minded.

“At Eldridge we are moving to have erected separate cottages for the care and treatment and comfortable isolation of consumptives. I have long advocated this plan, but unfortunate delays have interfered with its realization. Briefly, it seems to be the only thing for us or any other institution to do; with us, just now, it seems to be the imperative thing.”

I estimate that the cost of two such cottages as we shall need for this work would amount to about \$2,500 each. Total appropriation required, \$5,000.

4. A NEW AND MORE COMMODIOUS POWER-HOUSE, HEATING AND LIGHTING PLANT.

The present plant and system in operation is inadequate; excessively and grossly expensive for the service obtained, and quite unsafe. It is inadequate to meet existing demands of our large family, and as the latter increases, new facilities are simply imperative. I do not approve of any temporary measures, such as additions to or enlargement of the present plant. What is needed is a new plant, suitably situated and equipped. The present plant is unsuitably located, lacks equipment, and can never give us, in spite of all expense that might be spent upon it, the service which we require and which can be so easily obtained from a new and better arranged plant. Besides, we need the present quarters for other purposes, namely, the teaching of industrial occupations. The provision of the law, as per Section 9, already quoted, *i. e.*, the affording of the inmates such mechanical education as they may be capable of receiving and the employment of trade teachers, has, up to this time, remained practically a dead letter, for want of the proper facilities. It would, however, afford us a very considerable economy by the utilization of this labor in the making of articles needed by the Home. Feeble-minded children in other States in the country make their shoes, brooms, brushes, mattresses, mats, stockings, clothing, etc., and there seems no rational reason why the feeble-minded in this State cannot do the same. With the bakery, laundry, power and light plants removed to a central location, the quarters thus made vacant can be, as they ought to be, diverted to the industrial occupations and trades. Another

need for such a central building as I suggest lies in the present very expensive and unsatisfactory method of heating the buildings. The source of our heating lies in a number of hot-water heaters scattered about in the basements of the different wings. With them we are obliged to use coal as a fuel. All the fuel has to be carried in by hand; storage for fuel is scant, and in wet weather, when the consumption of fuel is greatest, the inconvenience experienced is very considerable. The expense of firing seems to be out of all proportion to the services obtained. The having of so many roaring fires in the basements is a standing menace to our safety, and offers unparalleled opportunities for incendiarism, toward which many of our children incline. I believe a thoroughly equipped steam-plant would give us a uniform temperature all over the buildings, be much more easily controlled, and I know would be much safer. As a measure of economy it would pay for its installation in a very short time.

The lighting of our buildings with gas manufactured from gasoline subjects us to additional risks of fire on account of the open burners into which children can throw their clothing, or from which they can otherwise start conflagrations if they are so minded. The vigilance required to prevent this is very trying, and adds considerably to the cost of support. The gas machine now in use has been out of order for a year past, and is liable at any time to suspend operations *in toto*. The gas it manufactures is of indifferent illuminating power, smokes the rooms and halls, and costs us from \$100 to \$150 a month *more* than the running of a 500-light electric plant would cost.

I estimate that a suitable building for boilers, for the installation of the electric light plant, for the equipment of a large laundry, for the housing of machinists' work-rooms, tools, supplies, and the accessories required, can be erected, if built of combination brick and frame, for about \$18,000; for equipment of machine-shop, carpenter-shop, etc., we need \$2,000; for the installation of the electric light plant, and changes in heating apparatus, \$10,000; total, \$30,000.

5. A NEW RESERVOIR FOR FIRE EMERGENCIES, STORAGE, AND FOR POWER.

You have already had presented to you the special report of the Chief Engineer of the Department of Public Works, covering this matter. The whole question has been most carefully looked into, and the advantages to be derived from the Engineer's plans are so great from the expenditure of money involved that it does not seem to me to be any longer a question of doubt. The plan recommended by the Engineer is simply the utilization of the former Laguna basin (now used as a vegetable garden) as a vast lake for the storage of water. Its capacity, if we put in a dam 15 feet high at the southern outlet, would be 50,000,000 gallons. The Engineer further estimates that a suitably laid

supply pipe from this reservoir to the Home will give us 340 feet of head, and 150 horse-power. The total cost for all the work involved need not exceed, I estimate, if done at present prices, \$15,000. The advantages to be derived are, aside from fire protection, etc., as follows:

The using of water as motive-power for laundry, thus saving for fuel over our present system, \$3,000 per year, at least.

Next, the application of water-power to electric light generation, effecting a further saving over a steam plant of at least \$3,000 per year. If we further computed the saving effected in salaries—as a water-power plant would not require the amount of paid labor to attend it that a steam plant does—it is easily figured that the total cost of the whole work will be saved in two years' time. Were this the only consideration, it would be enough, surely, to commend it; but when we realize the inestimable advantages in other lines—to comfort, to service, to security, and to good working results—the proposition stands unparalleled.

6. FOR FENCING FARM, EQUIPMENT, AND CARE OF GROUNDS.

The ranch is very badly protected in the matter of fencing, those in use being very old and insecure. We cannot keep our neighbors' stock out nor our own stock in. This condition of affairs is a disgrace to the State, and its continuance will be a severe reflection on the management of the Home. We should have this winter, for this work, an appropriation of \$2,500; for farm equipment, wagons, stock, implements, etc., for two years, we should have an appropriation of \$1,000; for the care of grounds, landscape gardening, purchase of trees, etc., for two years, an appropriation of \$2,000.

The following recapitulation gives briefly the wants I have enumerated:

6 cottages for low grade patients, at \$2,000 each.....	\$12,000 00
4 cottages for epileptics, at \$2,000 each.....	8,000 00
2 cottages for consumptives, at \$2,500 each.....	5,000 00
Building for power, etc.	30,000 00
Reservoir	15,000 00
Fencing, etc.	2,500 00
Farm equipment.....	1,000 00
Landscape gardening, etc	2,000 00
Total	\$75,500 00

In making up the foregoing estimates, I have, from motives of the strictest economy, suggested frame, or a combination of brick and frame buildings. I realize the force of the objection which can be raised against erecting frame buildings on State grounds for State purposes. The objections are, as a rule, well founded, and should control; but when an Institution such as ours suffers as ours has, and is now suffering for want of room, while hundreds of weak and afflicted children in

the State are crying at our doors for admission; when we absolutely know the distress, misery, pain, and horrors of neglect which is theirs, and which we could so easily dispel were we able to take them in—when all these stories of privations, sickness, want, and mental and physical degradation become our daily portion, we naturally feel that beauty of architecture, elaborateness of design, and solidity (which means costliness), are not to be considered alongside of the relief granted, which can come from even temporary frame structures. After a time one is willing to put up with almost any kind of shelter for these helpless children rather than attempt to longer withstand the heartrending supplications made by them or for them.

However, if our State were so minded, we could erect solidly built and substantially equipped brick structures at no greater general cost than for frame buildings. Our State can do this, and should, by utilizing the labor of the inmates of the State prisons and asylums. From the other institutions in the State we could obtain, if permitted, the brick, the furniture, the tinning, certain plumbing supplies, etc., at figures so low as would make our appropriations go a great many times farther than the present unfortunate system permits.

For instance, the inmates of the Napa Asylum make bricks. Last winter I had occasion to require a quantity of brick, and believing I was doing the proper thing, sent an order over to Dr. Gardner for a car-load of his asylum-made bricks. In due time they arrived and were used for the purpose intended. We found them to be remarkably well made, carefully burned, and in every way most satisfactory. They cost us \$2 25 per thousand, with the freight added. Knowing I would need some more brick, I secured a special rate from the R. R. Co., which would have enabled us to have them laid down at our warehouse for \$4 75 per thousand total cost. The same quality of bricks, if bought in the open market, would have cost us from \$9 to \$11 per M. My second requisition on the asylum authorities resulted in a refusal to supply us any more bricks in any quantity, there appearing to be some technical legal objection to the asylum furnishing us or any other institution "with any article manufactured by its inmates." This disbarment appears all the stranger when one realizes that the Industrial Home for the Adult Blind (a purely State institution) makes a regular business of supplying its brooms, etc., to us and to the other State institutions. The Napa bricks would have effected us a great saving, which would have been, of course, a *State saving*.

In the erection of these buildings, to which I have referred, were we permitted to use Napa bricks, we could erect them upon fireproof lines, build them solidly and securely, and yet about as economically as I have estimated.

As to the matter of support, I have, in response to the request of the

Controller of State, submitted the following estimates; and in doing so have based them upon the lowest and most economical calculations permissible for satisfactory work. The figures include items for general repairs, school material, salaries, supplies, "incidentals," etc. We have now in the Home over 450 inmates. It is probable that before the close of the present fiscal year we will have 500, or at least as many of that number as our appropriation will permit us to carry. For the next ensuing fiscal years, we calculate for a considerable increase, as follows:

For 49th fiscal year—525 inmates, at \$8 50 per month	\$53,550 00
Salaries—\$5 per inmate per month.....	31,500 00
Total for 49th fiscal year.....	<u>\$85,050 00</u>
For 50th fiscal year—600 inmates at \$8 25 per month	\$59,400 00
Salaries—\$5 per inmate per month.....	36,000 00
Total for 50th fiscal year	<u>\$95,400 00</u>
A grand total for the two years of \$180,450.	

It will be seen from the above that my estimate for the per capita monthly cost for equipping quarters and caring for each child, *in toto*, is \$13 50 per month for the forty-ninth, and \$13 25 per month for the fiftieth fiscal year. It is to be stated in this connection, that my figures include a margin for extraordinary expenses and emergencies, such as are sure to arise until we secure the completion of our plant. With a completed plant, fully equipped and arranged to care for all the cases in our charge as they should be cared for, the cost of that care will be very materially reduced. Changes and improvements in contemplation will, I have no doubt, enable us to strike a further economy, and may reduce our costs considerably below what I have given. If such should be, the surplus so obtained can be supplied to caring for just that many more children, for, from present appearances, it is not likely that the Home will, for several years yet to come, catch abreast of the demands being made upon it by the various classes who seek its seclusion and care.

The continuance of our quarterly "Bulletin," wherein has appeared comments current regarding the Home and its work, and also papers upon the professional and technical phases of our specialty, render unnecessary, in this connection, any extended reference to such topics. The "Bulletin" has steadily grown in favor, is largely sought for and read by our patrons, and has a constantly growing circulation among educators, scientific societies, libraries, and workers in charity and philanthropy.

Appended hereto will be found the financial and statistical tables covering the transactions of the Home for the past two fiscal years. They give fully and clearly, I trust, all matter connected with the subjects they refer to, and are respectfully submitted for your examination.

In conclusion, I beg to express to you the sincere appreciation of both

Mrs. Osborne and myself for the unvarying thoughtfulness and kindness with which you have, as individuals and as a Board, supervised and directed our work, and sustained and encouraged us in our efforts to serve the best interests of the Home and the State.

Respectfully submitted.

ANTRIM EDGAR OSBORNE,
Superintendent.

November 1, 1896.

TABLE No. 1.

Per Diem Average Cost of Maintenance for Fiscal Year ending June 30, 1895.

Months.	Total Expenditures.	Per Diem Expenditures.	Per Diem Population of Inmates.	Per Diem Cost per Inmate.	Per Diem Population of Inmates and Staff.	Per Diem Expenditures per Head per Total Population.
1894—July	\$4,323 59	\$139 47	304.6	\$0 45.8	360.6	\$0 38.7
Aug.	4,520 02	145 81	306.9	47.5	366.9	39.7
Sept.	4,434 48	147 82	312.7	47.3	373.7	39.5
Oct.	5,294 65	170 79	318.0	53.7	378.0	45.2
Nov.	5,146 08	171 54	320.8	53.5	380.8	45.0
Dec.	4,496 04	145 03	326.1	44.5	387.1	37.5
1895—Jan.	4,647 76	149 93	327.9	45.7	382.9	39.1
Feb.	4,184 47	149 44	329.2	45.4	388.2	39.5
Mar.	3,809 13	122 88	329.9	37.2	385.9	31.8
April	4,299 90	143 33	334.8	42.8	390.8	36.7
May	4,510 15	145 46	339.2	42.9	400.2	36.3
June	4,984 91	166 16	355.7	46.7	413.7	40.1
General Av...	\$4,554 25	\$149 80	325.5	\$0 46.1	384.1	\$0 39.0

TABLE No. 2.

Per Diem Average Cost of Maintenance for Fiscal Year ending June 30, 1896.

Months.	Total Expenditures.	Per Diem Expenditures.	Per Diem Population of Inmates.	Per Diem Cost per Inmate.	Per Diem Population of Inmates and Staff.	Per Diem Expenditures per Head per Total Population.
1895—July	\$5,698 97	\$183 82	396.0	\$0 46.0	457.0	\$0 40.2
Aug.	5,199 14	167 71	407.0	41.3	471.0	35.6
Sept.	5,133 38	171 12	410.0	41.7	476.0	35.9
Oct.	6,280 36	202 59	411.5	49.0	470.5	43.1
Nov.	6,727 24	224 24	416.5	53.9	475.5	47.2
Dec.	5,687 89	183 48	424.7	43.0	486.7	37.7
1896—Jan.	6,407 26	206 69	428.0	48.0	487.0	42.4
Feb.	5,944 56	204 98	433.0	47.0	493.0	41.6
Mar.	5,565 69	179 54	436.0	41.2	499.0	35.9
April	5,155 24	171 84	439.8	39.1	501.8	34.2
May	5,451 24	175 85	441.0	39.9	507.0	34.5
June	5,004 28	166 81	433.7	38.0	498.7	33.4
General Av...	\$5,687 94	\$186 56	423.1	\$0 44.0	485.2	\$0 38.5

TABLE No. 3.

Movement of Population of Patients for Year ending June 30, 1895.

	Males.	Females.	Total.
Census July 1, 1894	176	127	303
Admissions July 1, 1894, to June 30, 1895	46	49	95
Total for the year	222	176	398
Discharged	3	0	3
Died	7	4	11
Total to be deducted for the year	10	4	14
Population July 1, 1895	212	172	384

TABLE No. 4.

Movement of Population of Patients for the Year ending June 30, 1896.

	Males.	Females.	Total.
Census July 1, 1895	212	172	384
Admissions July 1, 1895, to June 30, 1896	40	64	104
Total for the year	252	236	488
Discharged	12	14	26
Died	5	14	19
Total to be deducted for the year	17	23	45
Population July 1, 1896	235	208	443

TABLE No. 5.

*Discharges and Deaths, with Causes of Death, during Fiscal Year ending
June 30, 1895.*

Discharges and deaths during the year 14

	Males.	Females.
Of this number there were taken home by parents and guardians...	3	0
Died, and cause of death were:		
Consumption	1	0
Coma dementia	1	0
Consumption of lungs	1	0
Epilepsy	2	1
La grippe and congestion of lungs	0	1
Marasmus	1	1
Osteo-carcinoma	0	1
Septicæmia	1	0
Totals	10	4

TABLE No. 6.

*Discharges and Deaths, with Causes of Death, during Fiscal Year ending
June 30, 1896.*

Discharges and deaths during the year 45

	Males.	Females.
Of this number there were taken home by parents and guardians...	12	14
Died, and cause of death were:		
Congestion of lungs	1	1
Consumption of lungs	0	2
Consumption	1	1
Epilepsy	2	1
La grippe	0	4
Marasmus	0	4
Pneumonia	1	0
Hemorrhage of stomach	0	1
Totals	17	28

TABLE No. 7.

Place of Birth of all Patients Admitted to the Home from December 10, 1885, to June 30, 1896.

Place of Birth.	Males.	Females.	Total.
Alabama	2	0	2
Australia	0	1	1
Arkansas	2	2	4
California	243	188	431
Canada	4	0	4
China (American parents)	1	2	3
Colorado	1	3	4
Denmark	1	1	2
England	2	7	9
Germany	0	5	5
Hawaiian Islands	2	0	2
Iowa	3	5	8
Illinois	11	7	18
Italy	3	0	3
Ireland	2	1	3
Kansas	3	7	10
Louisiana	1	3	4
Maine	1	0	1
Massachusetts	3	2	5
Michigan	1	3	4
Minnesota	0	2	2
Mississippi	0	1	1
Missouri	7	6	13
Mexico	1	1	2
Nebraska	6	1	7
Maryland	1	0	1
North Carolina	0	1	1
New Mexico	0	1	1
Nevada	3	5	8
Newfoundland	2	1	3
New York	5	8	13
New Jersey	0	3	3
Nova Scotia	1	0	1
Norway	0	2	2
Ohio	3	5	8
Oregon	4	1	5
Pennsylvania	3	2	5
Rhode Island	0	1	1
Scotland	1	1	2
Sweden	1	0	1
Switzerland	2	1	3
Tennessee	2	0	2
Texas	1	2	3
Unknown	3	5	8
Utah	1	0	1
Virginia	0	1	1
Washington	2	2	4
Wisconsin	1	3	4
Russia	1	0	1
Florida	0	1	1
Idaho	0	2	2
Kentucky	1	0	1
Totals	338	296	634

TABLE No. 8.

*Movement and Sex of Population of Patients, by Counties, Etc., from
December 10, 1885, to July 1, 1896.*

Counties, Etc.	Admissions.			Discharged.			Died.			Present Population.		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
Amador	1	1	2	0	0	0	0	0	0	1	1	2
Alameda	32	24	56	6	5	11	4	4	8	22	15	37
Butte	4	6	10	0	1	1	0	1	1	4	4	8
Contra Costa	4	2	6	0	0	0	1	0	1	3	2	5
Calaveras	3	2	5	1	0	1	0	0	0	2	2	4
Del Norte	4	3	7	1	1	2	0	0	0	3	2	5
El Dorado	1	3	4	0	0	0	0	2	2	1	1	2
Fresno	6	2	8	0	0	0	1	0	1	5	2	7
Glenn	3	0	3	0	0	0	1	0	1	2	0	2
Humboldt	5	4	9	2	1	3	1	0	1	2	3	5
Kern	0	1	1	0	1	1	0	0	0	0	0	0
Kings	1	0	1	0	0	0	0	0	0	1	0	1
Lake	2	2	4	0	0	0	1	0	1	1	2	3
Los Angeles	22	16	38	7	1	8	2	5	7	13	10	23
Lassen	0	1	1	0	0	0	0	0	0	0	1	1
Marin	4	2	6	1	0	1	0	0	0	3	2	5
Mariposa	0	1	1	0	0	0	0	0	0	0	1	1
Monterey	1	2	3	0	0	0	1	1	2	0	1	1
Merced	2	3	5	0	1	1	1	0	1	1	2	3
Mendocino	2	2	4	0	0	0	0	0	0	2	2	4
Modoc	2	0	2	1	0	1	0	0	0	1	0	1
Napa	2	6	8	0	1	1	1	2	3	1	3	4
Nevada	4	4	8	0	0	0	0	1	1	4	3	7
Placer	5	2	7	2	2	4	0	0	0	3	0	3
Plumas	0	2	2	0	0	0	0	0	0	0	2	2
Riverside	1	0	1	0	0	0	0	0	0	1	0	1
Sacramento	11	8	19	1	2	3	2	1	3	8	5	13
San Bernardino	6	2	8	1	0	1	0	0	0	5	2	7
San Benito	2	3	5	0	1	1	0	0	0	2	2	4
San Diego	6	4	10	3	1	4	1	0	1	2	3	5
San Francisco	113	106	219	19	20	39	9	11	20	85	75	160
San Joaquin	8	8	16	2	0	2	1	0	1	5	8	13
San Mateo	1	5	6	0	0	0	0	0	0	1	5	6
San Luis Obispo	2	2	4	0	0	0	0	2	2	2	0	2
Santa Barbara	3	3	6	0	0	0	1	1	2	2	2	4
Santa Clara	26	20	46	8	3	11	5	2	7	13	15	28
Santa Cruz	2	8	10	0	1	1	1	3	4	1	4	5
Sonoma	14	16	30	0	2	2	0	2	2	14	12	26
Siskiyou	3	1	4	1	0	1	1	0	1	1	1	2
Solano	3	2	5	0	1	1	1	1	2	2	0	2
Sutter	2	0	2	0	0	0	0	0	0	2	0	2
Stanislaus	1	2	3	0	0	0	1	0	1	0	2	2
Shasta	5	1	6	1	0	1	1	0	1	3	1	4
Sierra	0	1	1	0	0	0	0	0	0	0	1	1
Tulare	1	1	2	0	0	0	1	1	2	0	0	0
Tehama	1	2	3	0	1	1	0	0	0	1	1	2
Ventura	4	3	7	0	0	0	1	0	1	3	3	6
Yolo	9	5	14	1	0	1	2	1	3	6	4	10
Yuba	2	1	3	1	0	1	0	1	1	1	0	1
Nevada State	1	1	2	1	0	1	0	0	0	0	1	1
Sandwich Islands	1	0	1	1	0	1	0	0	0	0	0	0
Totals	338	296	634	61	46	107	42	42	84	235	208	443

SCHEDULE A.

Receipts from State Controller on Account of Appropriation for Maintenance for the Forty-sixth Fiscal Year.

1894—Aug. 14—Received cash (coin) from State Controller.....	\$2,012 86
Aug. 18—Received cash (coin) from State Controller.....	1,831 64
Sept. 19—Received cash (coin) from State Controller.....	2,130 04
Sept. 22—Received cash (coin) from State Controller.....	2,379 48
Oct. 13—Received cash (coin) from State Controller.....	2,158 31
Oct. 20—Received cash (coin) from State Controller.....	2,276 17
Nov. 19—Received cash (coin) from State Controller.....	2,126 15
Nov. 26—Received cash (coin) from State Controller.....	3,154 90
Dec. 26—Received cash (coin) from State Controller.....	2,184 63
Dec. 26—Received cash (coin) from State Controller.....	2,870 40
1895—Feb. 1—Received cash (coin) from State Controller.....	1,891 04
Mar. 1—Received cash (coin) from State Controller.....	2,016 32
Mar. 5—Received cash (coin) from State Controller.....	2,408 49
Apr. 1—Received cash (coin) from State Controller.....	1,988 23
Apr. 3—Received cash (coin) from State Controller.....	2,088 19
May 1—Received State warrant, State Controller.....	3,798 98
May 16—Received State warrant, State Controller.....	1,926 10
May 24—Received cash (coin) from State Controller.....	2,115 85
June 22—Received cash (coin) from State Controller.....	1,920 12
June 26—Received cash (coin) from State Controller.....	2,590 03
July 25—Received cash (coin) from State Controller.....	4,141 60
	<hr/> \$50,009 53

SCHEDULE B.

Receipts from Other Sources than State Appropriations during the Forty-sixth Fiscal Year.

1894—July 2—By cash—Rent of dairy	\$40 50
July 30—By cash—Sale of shoes.....	6 50
Aug. 15—By cash—Sale of fancy work.....	2 00
Aug. 15—By cash—Rent of dairy.....	40 50
Aug. 20—By cash—Rent of dairy.....	40 50
Aug. 31—By cash—Sale of fancy work.....	2 50
Sept. 19—By cash—Sale of fruit from farm.....	300 00
Sept. 30—By cash—Sale of shoes.....	11 30
Sept. 30—By cash—Rent of dairy.....	40 50
Sept. 30—By cash—Rebate on bill.....	4 00
Oct. 10—By cash—Sale of fruit from farm.....	60 97
Oct. 10—By cash—Sale of fancy work.....	4 33
Oct. 22—By cash—Rent of dairy.....	40 50
Oct. 22—By cash—Rebate on bill.....	8 71
Nov. 1—By cash—Sales of clothing, etc.....	101 05
Nov. 1—By cash—Sales of clothing, etc.....	109 50
Nov. 1—By cash—Rent of dairy.....	40 50
Nov. 1—By cash—Rebate of expressage.....	1 15
Nov. 1—By cash—Sale of fruit from farm.....	224 28
Nov. 1—By cash—Sale of provisions.....	26 94
Nov. 1—By cash—Sale of fancy work.....	50
Dec. 31—By cash—Sale of supplies.....	12 90
Dec. 31—By cash—Sale of fruit from farm.....	57 00
1895—Jan. 30—By cash—Sale of clothing, etc.....	27 45
Jan. 30—By cash—Sale of shoes.....	13 95
Jan. 30—By cash—Rent of dairy.....	40 50
Jan. 30—By cash—Sale of drugs.....	35
Feb. 6—By cash—Clothing, etc.....	31 85
Feb. 6—By cash—Clothing, etc.....	80 90
Feb. 28—By cash—Provisions.....	47 22
Feb. 28—By cash—Fancy goods.....	3 65
Feb. 28—By cash—Sale of fruit from farm.....	221 58
Feb. 28—By cash—Rent of dairy.....	40 50
Feb. 28—By cash—Sale of clothing, etc.....	33 20
Mar. 7—By cash—Sale of clothing, etc.....	6 50
Mar. 7—By cash—Rent of dairy.....	40 50
Apr. 30—By cash—Rent of dairy.....	40 50
Apr. 30—By cash—Rebate of bill.....	1 37

SCHEDULE B—Continued.

1895—Apr. 30—By cash—Sale of shoes.....	\$7 88
May 31—By cash—Sale of shoes.....	21 89
May 31—By cash—Rebate of bill.....	10 00
May 31—By cash—Rent of dairy.....	40 50
June 29—By cash—Rent of dairy.....	40 50
June 29—By cash—Rebate on tanks.....	30 00
June 29—By cash—Sale of drugs.....	50
	<hr/>
	\$1,957 52
By cash, special donations.....	847 50
By cash, from parents and guardians.....	3,349 20
By cash, interest on special deposits.....	200 00
	<hr/>
	\$6,354 22

SCHEDULE C.

Receipts from State Controller on Account of the Appropriation for the Erection of the Girls' Wing for the Forty-sixth Fiscal Year.

1894—Aug. 18—Received coin from State Controller.....	\$21,656 56
Sept. 22—Received coin from State Controller.....	928 80
Oct. 20—Received coin from State Controller.....	3,041 34
Nov. 26—Received coin from State Controller.....	6,734 80
Dec. 26—Received coin from State Controller.....	4,065 51
1895—Feb. 1—Received coin from State Controller.....	2,784 85
Mar. 5—Received coin from State Controller.....	805 50
Mar. 31—Received coin from State Controller.....	748 48
Apr. 3—Received coin from State Controller.....	1,447 57
May 20—Received coin from State Controller.....	8,396 19
May 24—Received coin from State Controller.....	731 04
June 26—Received coin from State Controller.....	1,445 34
July 25—Received coin from State Controller.....	317 10
	<hr/>
	\$53,113 08

SCHEDULE D.

Payments Made from Institution General Fund for Maintenance during Forty-sixth Fiscal Year.

1894—Aug. 1—Riley & Loane, repairs to Manse.....	\$216 72
Aug. 1—S. F. & N. P. Railway Co., freight.....	21 11
Aug. 1—Geo. Breitenbach, supplies.....	3 10
Aug. 1—Chas. J. Poppe, supplies.....	3 00
Aug. 22—Geo. H. Worrall, dentistry.....	56 50
Aug. 22—J. B. O'Brien, clothing.....	38 66
Aug. 22—A. A. Lamont, painting dining-room.....	40 00
Sept. 5—Ohmen Engine Works, repairs.....	4 00
Sept. 5—R. P. Hill, supplies.....	3 50
Sept. 5—C. J. Poppe, supplies.....	3 00
Nov. 1—Ross & Marcill, balance on fruit-wagon.....	13 60
Dec. 1—James Guilfoyle, balance on repairing roofs.....	41 05
Dec. 1—Dr. Thos Maclay, examining cattle.....	50 00
1895—Jan. 2—Payroll for December, 1894, Institution.....	1,704 44
Jan. 2—Payroll for December, 1894, Farm.....	362 02
Jan. 2—Sweetwater Coal Mining Co., coal.....	216 25
Jan. 2—S. L. Close, calcimining and repairs.....	202 50
Jan. 2—Quito Olive Farm, olive oil.....	45 00
Jan. 2—W. A. Thompson, poultry.....	28 20
Jan. 2—C. J. Poppe, supplies.....	9 07
Jan. 2—Dr. A. E. Osborne, Superintendent, expenses.....	37 24
Mar. 5—Savings Bank of Santa Rosa, expenses.....	99 25
Mar. 5—Mann & Wilson, insurance.....	75 00
Mar. 5—A. P. Overton, Trustee, expenses.....	20 00
Mar. 5—Dr. A. E. Osborne, Superintendent, expenses.....	12 80
Mar. 5—R. P. Hill, sundries.....	8 00
Mar. 5—Sonoma Index-Tribune, advertising.....	7 50
Apr. 3—Dr. A. E. Osborne, Superintendent, expenses.....	10 05
May 1—Sunset Telephone Co., rent.....	5 00
May 1—R. Harmon, supplies.....	1 25

SCHEDULE D—Continued.

1895—May	1—Dr. A. E. Osborne, Superintendent, expenses	\$3 90
June	5—C. J. Poppe, supplies	10 80
June	5—Sunset Telephone Co., rent	5 00
June	5—Sunset Telephone Co., switching	3 25
June	29—William Green, lumber	98 00
June	29—Sunset Telephone Co., installing private system	128 90
June	29—Dr. A. E. Osborne, Superintendent, expenses	12 00
July	10—Grace Bros., wood	393 46
July	10—Wm. Green, lumber	252 05
July	10—Golden Gate Woolen Manufacturing Co., blankets	87 50
July	10—Dr. A. E. Osborne, Superintendent, contingent expenses	42 40
July	10—Gussie Wright	5 95
July	10—Sunset Telephone Co., rent	5 00
July	10—C. J. Poppe, supplies	4 60
July	10—Palace Hardware Co., supplies	4 05
July	10—Mack & Co., drugs	3 80
July	10—Will & Fink Co., supplies	2 30
July	10—W. B. Farley & Co., berries	3 30
July	10—Merton Manufacturing Co., supplies	2 00
July	10—C. J. Poppe, supplies	1 25
July	10—Rohrer, Einhorn & Co., dry goods	29 55

\$4,436 57

SCHEDULE E.

*Payments Made from the State Appropriation for Maintenance during the
Forty-sixth Fiscal Year.*

1894—August	1—Payroll for July, Institution	\$1,616 57
	Payroll for July, Farm	396 29
	Geo. P. McNear, flour, potatoes, etc.	242 69
	Geo. W. Beatty, meats, ice, etc.	210 74
	Frank P. Grace, groceries	206 78
	Louis Waser, milk	161 20
	Dunham, Carrigan & Hayden Co., grates for furnaces	128 75
	Buckingham & Hecht, shoes and supplies	118 80
	Rohrer, Einhorn & Co., dry goods	114 97
	Miller, Sloss & Scott, hardware supplies	100 65
	Getz Bros. & Co., provisions	97 43
	S. Foster & Co., groceries	85 56
	Standard Oil Co., gasoline and oil	55 60
	W. P. Fuller & Co., oils and paints	41 93
	M. H. Dignan, medicines, etc.	40 23
	Williams-Marvin Co., shoe supplies	39 97
	S. F. & N. P. Railway Co., freight	34 86
	Dr. A. E. Osborne, Superintendent, contingent expenses	33 10
	Golden Eagle Milling Co., meals, etc.	28 20
	Pacific Laundry Machine Co., starch	14 28
	Mack & Co., drugs, etc.	10 84
	Miss Ollie Wright, sewing	10 00
	Chas. J. Poppe, supplies	8 00
	John. G. Iis & Co., repairs	7 20
	Goodyear Rubber Co., rubber sheeting	6 60
	Le Count Bros., stationery	3 50
	Sherman, Clay & Co., music supplies	1 76
	C. A. Wright & Co., stationery	1 00
	Will & Fink Co., curtain fixtures	50
	Robt. P. Hill, contingent expense, account Farm	10 30
	M. F. Turley, blacksmithing, account Farm	10 15
	Chas. J. Poppe, supplies	6 05
		\$3,844 50
Sept. 5—	Payroll for August, Institution	\$1,673 60
	Payroll for August, Farm	456 44
	Grace Bros., groceries	283 99
	George W. Beatty, meats, etc.	243 20
	Sweetwater Coal Mining Co., coal	216 25
	Louis Waser, milk and dairy supplies	199 18
	George P. McNear, flour, meal, etc.	85 08
	F. Dühring, shoes, clothes, etc.	73 06
	Rohrer, Einhorn & Co., dry goods	63 25
	Eberhard Tanning Co., leather	58 13

SCHEDULE E—Continued.

1894—Sept. 5—W. P. Fuller & Co., glass, paints, etc.	\$55 22	
Dr. A. E. Osborne, Superintendent, contingent expenses	48 95	
Getz Bros. & Co., provisions	41 40	
Mack & Co., medicines	38 98	
Hale Bros. & Co., dry goods and clothing	35 73	
W. W. Montague & Co., range, etc.	31 10	
Pacific Laundry Machine Co., laundry supplies	28 44	
Miller, Sloss & Scott, hardware supplies	22 60	
Charles J. Poppe, supplies	23 95	
Williams-Marvin Co., shoe supplies	20 39	
Dunham, Carrigan & Hayden Co., heater repairs	19 17	
William Cline, provisions, etc.	14 70	
Goodyear Rubber Co., rubber sheeting	14 66	
Holbrook, Merrill & Stetson, kitchen furnace	13 40	
Miss Ollie Wright, sewing	11 65	
M. H. Dignan, medicines	11 20	
Will & Finck Co., laundry and kitchen supplies	8 50	
James Cromwell, potatoes	6 85	
Troy Laundry Machine Co., laundry supplies	6 50	
Heywood Bros. & Co., chair bottoms	3 00	
J. H. A. Folkers & Bro., surgical supplies	2 75	
Pierce Powers, berries	2 20	
Patrick Monahan, hay, account Farm	338 25	
Ross & Marcell, farm wagon, account Farm	200 00	
Nathan, Dohrmann & Co., jars, rubbers, and tops	45 69	
George P. McNear, feed	28 74	
Charles J. Poppe, supplies	18 27	
Thomas Monahan, labor	16 50	
William Monahan, labor	12 00	
M. F. Turley, blacksmithing	11 65	
F. Clewe, sulphur, etc.	8 75	
R. P. Hill, contingent expenses	6 15	
A. Westrup, hose	5 00	
		\$4,509 52
Oct. 3—Payroll for September, Institution	\$1,701 16	
Payroll for September, Farm	457 15	
Grace Bros., groceries	337 83	
Bernhard Mattress Co., bedsteads, etc.	266 50	
Geo. W. Beatty, meats, etc.	267 04	
Sweetwater Coal Mining Co., coal	216 25	
Geo. P. McNear, flour, meals, etc.	211 72	
Louis Waser, milk, etc.	189 10	
Hale Bros. & Co., clothing, etc.	90 00	
Rohrer, Einhorn & Co., dry goods, etc.	68 51	
William Cline, groceries, etc.	58 15	
S. F. & N. P. Railway Co., freight	42 58	
M. H. Dignan, drugs	41 67	
Nathan, Dohrmann & Co., crockery	37 68	
W. P. Fuller & Co., glass, oils, paints, etc.	36 82	
O. T. Baldwin, professional services	22 00	
F. Clewe, sugar	20 56	
Miller, Sloss & Scott, hardware supplies	20 16	
Bancroft Bros. Company, school supplies	18 17	
Newman & Levinson, dry goods	17 65	
O'Connor, Moffatt & Co., dry goods	16 00	
Chas. J. Poppe, supplies	15 10	
Mack & Co., drugs, etc.	12 29	
Davis Bros., step-ladders	12 00	
Getz Bros. & Co., supplies	11 75	
L. H. Moise, rubber stamps	11 00	
F. Duhring, coffee	10 00	
Dunham, Carrigan & Hayden, grate bars	9 00	
Miss Ollie Wright, sewing	5 83	
Pacific Laundry Supply Co., laundry supplies	5 25	
J. C. Mailer, pipe fittings	2 00	
Will & Finck Co., curtain cord	1 50	
A. Waldteufeldt, school supplies	1 41	
Dr. A. E. Osborne, Superintendent, contingent expenses	31 65	
Nathan, Dohrmann & Co., fruit jars, account Farm	79 50	
Patrick Monahan, fence posts	33 00	
Geo. P. McNear, feed	27 84	
M. F. Turley, blacksmithing	16 80	
Robt. P. Hill, contingent expenses	8 93	
Chas. J. Poppe, supplies	2 93	
		\$4,434 48

SCHEDULE E—Continued.

1894—Nov. 7—Payroll for Institution for month of October	\$1,642 71	
Payroll for Farm for month of October	483 44	
Grace Bros., groceries, etc.	583 10	
George W. Beatty, meats, etc.	323 79	
Sweetwater Coal Mining Co., coal	216 25	
Bernhard Mattress Co., bedsteads, etc.	211 70	
Louis Waser, milk, etc.	203 25	
Miller, Sloss & Scott, hardware, etc.	187 88	
Buckingham & Hecht, shoe uppers	158 30	
Viking Machine Works, serving-tables	156 00	
W. P. Fuller & Co., gasoline, oil, etc.	124 14	
Hale Bros. & Co., uniform suits	120 00	
Golden Gate Woolen Mfg. Co., blankets, etc.	115 70	
Rohrer, Einhorn & Co., dry goods, etc.	104 20	
George P. McNear, flour, meal, etc.	92 20	
Eberhard Tanning Co., leather	55 35	
Mack & Co., medicines, etc.	52 87	
Dr. A. E. Osborne, Superintendent, contingent expenses	50 35	
Getz Bros. & Co., provisions, etc.	45 29	
Heywood Bros. & Co., repairing chairs	33 00	
Dinmore Soap Co., soap	32 55	
M. H. Dignan, drugs	29 10	
Wendell-Russell Supply Co., laundry supplies	27 00	
W. W. Montague & Co., kitchen furniture	25 44	
Charles J. Poppe, supplies	20 25	
Goodyear Rubber Co., rubber sheeting	20 38	
S. F. & N. P. Railway Co., freight	18 16	
A. A. Watkins, Trustee, oil stove, etc.	18 00	
Pacific Laundry Machine Co., starch	14 28	
Le Count Bros., stationery	10 50	
M. Kaiser, cheese	4 38	
R. A. Bourne, shoe findings	4 10	
Williams-Marvin Co., shoe findings	2 95	
Will & Finck Co., sundry supplies	2 85	
Troy Laundry Machine Co., water-gauges	1 80	
George P. McNear, feed, account Farm	32 24	
Robert P. Hill, contingent expenses	12 95	
Charles J. Poppe, supplies	11 95	
William Green, lumber	11 20	
A. W. Weaver, blacksmithing	10 80	
M. F. Turley, blacksmithing	10 65	
		\$5,281 05
Dec. 5—Payroll for Month of November, Institution	\$1,692 83	
Payroll for month of November, Farm	491 80	
Grace Bros., groceries, wood, etc.	650 97	
G. W. Beatty, meats, etc.	291 03	
Hale Bros. & Co., uniforms, shoes, etc.	252 50	
Louis Waser, milk, butter, eggs	226 32	
W. P. Fuller & Co., paints, oils, etc.	200 30	
Geo. P. McNear & Co., flour, meal, etc.	167 45	
W. W. Montague & Co., kitchen furniture	137 52	
Redington & Co., paint, oil, glass	121 80	
Mrs. M. Zane, poultry	116 35	
Golden Gate Woolen Manufacturing Co., blankets	100 00	
J. Lafferty, wood	88 00	
Rohrer, Einhorn & Co., dry goods	62 05	
Dr. A. E. Osborne, Superintendent, contingent expenses	55 05	
Newman & Levison, dry goods, etc.	53 93	
F. L. Clark, undertaker charges	46 00	
O'Connor, Moffatt & Co., dry goods, etc.	38 65	
Getz Bros. & Co., provisions, etc.	38 50	
C. A. Wright & Co., stationery	26 81	
John G. IIs & Co., kitchen repairs	24 00	
Buckingham & Hecht, shoe supplies	23 85	
Pacific Laundry Machine Co., laundry supplies	23 32	
Heywood Bros. & Co., chair repairs	22 50	
M. H. Dignan, medicines	15 75	
Kohler & Chase, school supplies	14 68	
Miller, Sloss & Scott, hardware	8 14	
Goodyear Rubber Co., rubber sheeting	7 50	
Badlam Bros, repairs light plant	7 42	
Chas. J. Poppe, sundry supplies	6 10	
Will & Finck Co., sundry supplies	4 50	
M. E. Bones, soap	4 35	

SCHEDULE E—Continued.

1894—Dec. 5—M. Kaiser, cheese.....	\$6 13	
Sherman, Clay & Co., music supplies.....	3 98	
Robt. Poppe, Trustee, traveling expenses.....	2 80	
Chas. J. Poppe, supplies, account Farm.....	7 30	
Geo. Breitenbach, harness, account Farm.....	5 75	
Robt. P. Hill, contingent, account Farm.....	5 25	
M. F. Turley, blacksmithing, account Farm.....	3 85	
		\$5,055 03
1895—Jan. 2—Grace Bros., groceries.....	\$376 23	
G. W. Beatty, meats, etc.	310 17	
Louis Waser, milk.....	254 37	
W. P. Fuller & Co., gasoline and coal oil.....	206 10	
George P. McNear, flour.....	160 38	
Murphy, Grant & Co., bedding, dry goods.....	131 60	
Owen Burns, wood.....	92 00	
M. H. Dignan, drugs.....	60 24	
Rohrer, Einhorn & Co., dry goods.....	47 10	
Redington & Co., paints, glass, etc.	43 44	
Hale Bros. & Co., clothing, etc.	38 65	
Miller, Sloss & Scott, hardware.....	29 36	
Buckingham & Hecht, shoe supplies.....	27 66	
S. F. & N. P. Railway Co., freight.....	12 86	
Pacific Laundry Machine Co., laundry supplies.....	12 00	
Getz, Bros. & Co., provisions.....	11 75	
Paraffine Paint Co., roof paper.....	8 00	
Edw. W. Hill, typewriter supplies.....	4 50	
C. A. Wright & Co., stationery.....	4 15	
Wm. Green, lumber.....	46 96	
M. F. Turley, blacksmithing.....	11 60	
Chas. J. Poppe, supplies.....	2 25	
		\$1,891 37
Feb. 6—Payroll for Institution for February.....	\$1,557 26	
Payroll for Farm for February.....	459 06	
Grace Bros., groceries and provisions.....	413 06	
Louis Waser, milk, butter, etc.	235 83	
Hale Bros. & Co., uniform suits.....	229 00	
Geo. W. Beatty, meats.....	217 81	
Sweetwater Coal Mining Co., coal.....	216 25	
Geo. P. McNear, flour, etc.	194 27	
W. P. Fuller & Co., gasoline, etc.	156 00	
Rohrer, Einhorn & Co., dry goods, etc.	118 08	
Badlam Bros., gasoline.....	110 00	
Oregon Improvement Co., coal.....	108 95	
Eberhard Tanning Co., leather.....	63 70	
Standard Oil Co., gasoline.....	44 00	
Dr. A. E. Osborne, Superintendent, contingent expenses.....	37 20	
Yates & Co., lubricating oils.....	31 96	
Pacific Laundry Machine Co., laundry supplies.....	31 43	
W. A. Thompson, poultry.....	24 24	
Miller, Sloss & Scott, hardware.....	21 06	
M. H. Dignan, drugs, etc.	13 77	
R. A. Bourne, shoe supplies.....	12 40	
Goodyear Rubber Co., sheeting.....	7 85	
M. Kaiser, cheese.....	6 95	
Chas. J. Poppe, supplies.....	4 50	
Robt. A. Poppe, traveling expenses.....	3 00	
C. A. Wright & Co., stationery.....	1 00	
Geo. P. McNear, feed, account Farm.....	32 11	
N. S. Redenbaugh, pruning, account Farm.....	27 00	
M. F. Turley, blacksmithing, account Farm.....	19 15	
James Young, sash, account Farm.....	10 50	
Chas. J. Poppe, supplies, account Farm.....	11 32	
Robert P. Hill, contingent expenses, account Farm.....	6 45	
		\$4,425 21
March 6—Payroll for Institution for February.....	\$1,571 80	
Payroll for Farm for February.....	416 43	
Grace Bros., groceries, etc.	252 95	
Louis Waser, milk, butter, eggs, etc.	218 89	
Sweetwater Coal Mining Co., coal.....	216 25	
George P. McNear, flour, meals, etc.	214 37	
C. A. Wright & Co., stationery and school desks.....	198 80	
George W. Beatty, meats.....	184 82	
Murphy, Grant & Co., dry goods.....	105 58	
Buckingham & Hecht, shoe supplies.....	79 50	

SCHEDULE E—Continued.

1895—March 6—Rohrer, Einhorn & Co., dry goods, etc.	\$61 98
S. F. & N. P. Railway Co., freight	54 66
John G. Iis & Co., cooking utensils and repairs	47 05
Nathan, Dohrmann & Co., crockery	45 30
W. P. Fuller & Co., gasoline, etc.	43 83
W. & J. Sloane & Co., matting	41 51
Dr. A. E. Osborne, Superintendent, contingent expenses ..	38 34
J. H. A. Folkers & Bro., surgical instruments	33 58
Bass-Hueter Paint Co., paint supplies	28 25
G. W. Clark, undertaker supplies	14 00
M. H. Dignan, drugs, etc.	12 65
W. W. Montague & Co.	9 50
J. A. Poppe, sugar	9 06
Robert A. Poppe, Trustee, traveling expenses	3 60
Bernhard Mattress Co., table	3 50
Mack & Co., laundry supplies	3 25
R. A. Bourne, shoe supplies	3 00
Hale Bros. & Co., clothing	2 90
L. H. Moise, rubber stamps	1 75
Will & Finck Co., curtain rings, etc.	1 35
Miller, Sloss & Scott, hardware	1 15
Palace Hardware Co., hardware	55
Dr. A. E. Osborne, Superintendent, contingent expenses ..	34 00
William Green, lumber, account Farm	98 00
N. S. Redenbaugh, pruning, account Farm	61 00
Charles J. Poppe, supplies, account Farm	14 22
Patrick Monahan, pruning, account Farm	12 00
M. F. Turley, blacksmithing, account Farm	10 95
M. Reible, bull, account Farm	10 00
R. P. Hill, contingent expenses, account Farm	7 35
George Breitenbach, harness supplies, account Farm	6 75
	\$4,174 42
April 3—Payroll for March, Institution employes	\$1,579 41
Payroll for March, Farm employes	448 23
Grace Bros., groceries and wood	440 59
Hale Bros., uniform suits	248 75
Louis Waser, milk, butter, and eggs	222 30
Geo. W. Beatty, meats, fish, and ice	219 50
Geo. P. McNear, flour, meals, etc.	174 39
W. P. Fuller & Co., gasoline and oil	142 05
L. L. Gross, repairing roofs buildings	32 40
Rohrer, Einhorn & Co., dry goods	22 16
Miller, Sloss & Scott, grading tools and hardware	19 90
Dr. A. E. Osborne, Superintendent, contingent expenses ..	19 90
Goodyear Rubber Co., rubber sheeting	15 70
C. F. Carmer, butter, eggs, etc.	14 70
Pacific Laundry Machinery Co., starch	13 55
M. H. Dignan, drugs and medicines	12 65
Oscar Foss, school supplies	11 60
Yates & Co., paints, etc.	10 33
Mack & Co., drugs	10 11
S. F. & N. P. Railway Co., freight	9 70
Julis Fochetti, repairing dump cart	6 00
Ohmen Engine Works, repairs engine	3 50
Sunset Seed & Plant Co., lawn seed	2 50
Chas. J. Poppe, supplies	1 10
N. S. Redenbaugh, pruning, account Farm	29 70
Geo. P. McNear, feed, account Farm	29 47
Chas. J. Poppe, supplies, account Farm	20 89
M. F. Turley, blacksmithing, account Farm	19 90
	\$3,798 98
May 1—Payroll for Institution for month of April	\$1,566 21
Payroll for Farm for month of April	359 89
Grace Bros., groceries, wood, etc.	433 07
Sweetwater Coal Mining Co., coal	216 25
G. W. Beatty, meats	202 96
Louis Waser, milk and eggs	198 45
Geo. P. McNear, flour, etc.	170 45
H. Williamson, repairs, plumbing, gas fixtures	153 25
Bernhard Mattress Co., bed fastenings	91 20
W. P. Fuller & Co., gasoline and oil	90 83
Golden Gate Woolen Manufacturing Co., blankets	87 50
Buckingham & Hecht, shoe supplies	74 40
Eberhard Tanning Co., leather supplies	63 45

SCHEDULE E—Continued.

1895—May 1—Bass-Hueter Paint Co., paints, glass, etc.	\$58 08	
Pacific Laundry Machine Co., laundry supplies	47 25	
Miller, Sloss & Scott, hardware supplies	42 28	
Nathan, Dohrmann & Co., crockery, etc.	24 10	
M. S. Davis, undertaker supplies	22 00	
Rohrer, Einhorn & Co., dry goods	16 60	
C. F. Carmer, dairy supplies	16 20	
Le Count Bros., stationery	8 63	
M. H. Dignan, drugs, etc.	6 90	
Robt. A. Poppe, traveling expenses	3 90	
Dr. A. E. Osborne, Superintendent, contingent expenses	26 45	
Geo. P. McNear, feed for stock, account Farm	28 90	
M. F. Turley, blacksmithing, account Farm	9 20	
J. I. Case Plow Works, plow	12 00	
A. Westrup, hose	6 25	
Chas. J. Poppe, supplies	5 30	
		\$4,041 95
June 5—Payroll for Institution for month of May	\$1,600 55	
Payroll for Farm for month of May	319 57	
Grace Bros., groceries, potatoes, and wood	401 25	
Bernhard Mattress Co., mattresses, pillows, etc.	369 70	
G. W. Beatty, meats, fish, ice, etc.	263 47	
Louis Waser, milk, butter, eggs	208 65	
Geo. P. McNear, flour, meals, etc.	203 20	
Rohrer, Einhorn & Co., dry goods, etc.	147 03	
Hale Bros., uniform suits	140 00	
Murphy, Grant & Co., dry goods, etc.	100 95	
W. P. Fuller & Co., gasoline and oil	73 35	
Buckingham & Hecht, shoe supplies	70 62	
Henderson Woolen Mills, work pants	60 75	
M. H. Dignan, medicines and disinfectants	45 14	
W. & J. Sloane & Co., floor rugs	39 60	
Trest & Co., hats	38 00	
E. Fugal, repairs to roof	35 00	
Dr. A. E. Osborne, Superintendent, contingent expenses	33 45	
Nathan, Dohrmann & Co., crockery	30 93	
Bancroft Bros. & Co., school furniture	24 00	
C. F. Carmer, butter and eggs	19 20	
J. M. Flowers, maps for school	18 75	
American Tract Society, books for school	18 45	
Miller, Sloss & Scott, hardware supplies	17 23	
Pacific Laundry Machine Co., starch	13 64	
M. S. Davis, undertaking supplies	11 00	
Holbrook, Merrill & Stetson, kitchen supplies	10 25	
Badlam Bros., repairs gas plant	9 50	
M. E. Bones, repairs for bridge	8 00	
Goodyear Rubber Co., rubber sheeting	7 85	
A. Bourne, shoe supplies	7 70	
Mack & Co., drugs, etc.	7 04	
Will & Finck Co., hair-clippers	7 00	
L. H. Moise, rubber stamps	3 50	
Robt. A. Poppe, expenses	2 50	
P. Monahan, mowing and raking hay, account Farm	75 00	
Geo. P. McNear, feed, etc., account Farm	28 52	
M. F. Turley, blacksmithing, account Farm	12 65	
Geo. Breitenbach, harness repairs, account Farm	10 80	
Chas. J. Poppe, supplies, account Farm	9 65	
Robt. P. Hill, contingent expenses, account Farm	4 40	
Deere Improvement Co., plow, account Farm	2 31	
		\$4,510 15
July 3—Payroll for month of June, Institution	\$1,660 24	
Payroll for month of June, Farm	294 50	
Grace Bros., groceries, provisions, etc.	312 07	
Geo. W. Beatty, meats, fish, ice, etc.	243 75	
Sweetwater Coal Mining Co., coal	216 25	
Louis Waser, milk	183 45	
Geo. P. McNear, flour, meals, etc.	174 44	
F. Clewe, clothing, etc.	170 10	
Bass-Hueter Paint Co., paints, oils, etc.	74 76	
Eberhard Tanning Co., leather	71 24	
J. C. Pederson, chairs and tables	70 65	
W. P. Fuller & Co., gasoline and oil	68 70	
Bernhard Mattress Co., chairs	63 00	
D. Leppo, furniture	59 65	

SCHEDULE E—Continued.

1895—July 3—Newton V. V. Smyth, surveying	\$55 00	
Payot, Upham & Co., kindergarten supplies	48 75	
H. Hotz, clothing, dry goods, etc.	36 97	
Miller, Sloss & Scott, hardware, pipes, etc.	27 69	
Rohrer, Einhorn & Co., dry goods, etc.	23 90	
Badlam Bros., gas burners and fixtures	23 50	
M. H. Dignan, drugs, medicines, etc.	17 40	
Goodyear Rubber Co., rubber sheeting	15 65	
C. A. Wright & Co., stationery	14 50	
W. & J. Sloane & Co., matting, etc.	13 35	
Nathan, Dohrmann & Co., crockery	6 40	
Patrick Monahan, labor on hay, account Farm	111 15	
Geo. P. McNear, feed, account Farm	25 70	
A. W. Weaver, blacksmithing, account Farm	16 75	
Geo. Breitenbach, harness, account Farm	16 50	
M. F. Turley, blacksmithing, account Farm	12 45	
J. A. Poppe, supplies, account Farm	5 48	
Robt. P. Hill, contingent expenses, account Farm	2 60	
C. F. Carmer, supplies, butter, etc.	11 46	
		\$4,148 00

SCHEDULE F.

Classified Expenditures Forty-sixth Fiscal Year.

Salaries	\$17,953 11
Groceries	1,936 85
Meats	3,227 57
Vegetables	639 80
Dairy supplies	3,767 91
Flour	2,062 67
Laundry supplies	699 12
Farm	6,431 42
Medicines and drugs	415 17
Stationery	142 13
Telegraphing	20 00
Postage	162 85
Expressage, freight, etc.	234 39
Dry goods	1,140 75
Shoes, findings, etc.	1,007 31
Clothing	1,719 10
Furniture	2,307 79
Traveling expenses	37 30
General expenses	1,518 66
Fuel	2,838 96
Light	1,347 80
Brushes, brooms, etc.	93 57
School supplies	260 00
Crockery	45 30
	\$50,009 53

SCHEDULE G.

Payments Made on Account of Erecting Girls' Wing during the Forty-sixth Fiscal Year.

1894—Aug. 20—Riley & Loane, assignees of J. F. Logan, contractor ..	\$3,361 62
Riley & Loane, assignees of J. F. Logan, contractor	6,629 73
Bateman Bros., contractors	5,824 80
H. Williamson, assignee of James E. Britt, contractor	3,586 28
McCann & McKay, contractors	927 00
Christian Froelich, iron pipe	524 60
I. P. Kincaid, Superintendent of Construction	155 79
Copeland & Peirce, architects	452 91
Riley & Loane, extras	38 00
Patrick Haley, laying sewer	35 00
N. S. Redenbaugh, laying sewer	25 00
D. A. Macphee, labor on grounds	25 00
Cladding, McBean & Co., sewer-pipe	18 53
Riley & Loane, sewer-pipe	16 00

SCHEDULE G—Continued.

1894—Aug. 20—San Francisco and North Pacific Railway Co., freight.....	\$13 45	
J. R. Allen, labor on grounds.....	10 85	
Miller, Sloss & Scott, iron pipe.....	10 00	
R. J. Dowdall, teaming.....	2 00	
		\$21,656 56
Sept. 25—J. R. Hanify, lumber.....	\$256 16	
L. L. Gross, ventilating.....	224 25	
Miller, Sloss & Scott, pipe, etc.....	84 25	
Riley & Loane, cement.....	48 00	
M. E. Bones, labor.....	41 00	
Luigi Lazzan, labor.....	33 00	
Patrick Haley, sewer.....	33 50	
J. R. Allen, labor.....	24 17	
Gladding, McBean & Co., sewer-pipe.....	11 18	
M. H. Haskins, labor.....	15 00	
Thomas Monahan, labor.....	13 50	
I. P. Kincaid, Superintendent of Construction.....	155 79	
		938 80
Oct. 22—Bateman Bros., contractors.....	\$630 90	
McCann & McKay, contractors.....	1,260 00	
American Ventilating Co., contractors.....	500 00	
I. P. Kincaid, Superintendent of Construction.....	150 02	
Riley & Loane, cement.....	96 00	
Miller, Sloss & Scott, water-pipe.....	66 61	
Copeland & Peirce, architects.....	52 52	
M. E. Bones, labor.....	50 00	
D. A. Macphee, labor.....	50 00	
R. J. Dowdall, labor and teaming.....	41 40	
Luigi Lazzan, labor.....	37 50	
E. Steiger, labor and teaming.....	30 00	
S. F. & N. P. Railway Co., freight.....	28 09	
J. R. Allen, labor.....	25 00	
W. H. Haskins, labor.....	15 83	
David Foster, labor.....	7 47	
		3,041 34
Nov. 27—Bateman Bros., contractors.....	\$2,308 50	
McCann & McKay, contractors.....	828 00	
H. Williamson, assignee of James E. Britt, contractor.....	774 00	
Keystone Boiler Works, boiler.....	978 83	
Payroll, labor on grounds.....	583 25	
Geo. P. McNear, cement.....	482 20	
R. J. Dowdall, excavating.....	224 50	
I. P. Kincaid, Superintendent of Construction.....	155 79	
Copeland & Peirce, architects.....	108 62	
J. H. McKay, extras.....	100 63	
William Green, lumber.....	77 60	
Miller, Sloss & Scott, pipe.....	58 08	
S. F. & N. P. Railway Co., freight.....	31 30	
B. Keefe, labor.....	23 50	
		6,734 80
Dec. 28—Bateman Bros., contractors.....	\$1,669 50	
Geo. P. McNear, cement.....	686 40	
Payroll, labor.....	666 68	
R. J. Dowdall, excavating.....	252 00	
James Young, lumber.....	233 15	
W. A. Kemp, extras.....	175 00	
I. P. Kincaid, Superintendent of Construction.....	150 02	
L. L. Gross, tin gutters.....	77 85	
Miller, Sloss & Scott, pipe.....	72 92	
Copeland & Peirce, architects.....	46 37	
William Green, shingles.....	20 80	
Gladding, McBean & Co., sewer-pipe.....	14 82	
		4,665 51
1895—Feb. 5—Payroll, labor on grounds.....	\$393 25	
Geo. P. McNear, cement.....	343 20	
S. L. Close, setting centers.....	187 25	
I. P. Kincaid, Superintendent of Construction.....	144 25	
J. C. Gwinn, carpenter.....	108 50	
J. Chauvet, lumber.....	50 35	
S. F. & N. P. Railway Co.....	40 98	
Copeland & Peirce, architects.....	38 55	
Miller, Sloss & Scott, iron.....	21 42	
W. A. Kemp, centers.....	21 00	
James Young, moldings.....	21 00	

SCHEDULE G—Continued.

1895—Feb. 5—Gladding, McBean & Co., firebrick	\$20 50	
M. F. Turley, iron	6 80	
		\$1,397 05
March 7—Bateman Bros., contractors	\$1,387 80	
March 30—Bateman Bros., extras	349 96	
Payroll, labor on grounds	231 75	
Riley & Loane, brick for boiler	80 00	
Miller, Sloss & Scott, pipe	46 91	
Copeland & Peirce, architects	22 37	
Copeland & Peirce, architects	17 49	
March 31—H. Williamson, assignee of Jas. E. Britt, contractor	805 50	
		2,941 78
April 3—Payroll, labor on grounds	\$593 00	
Geo. P. McNear, cement	343 20	
Boston Woven Wire Hose and Rubber Co.	262 70	
I. P. Kincaid, Superintendent of Construction	178 87	
Keystone Boiler Works	40 50	
Miller, Sloss & Scott, pipe	23 83	
S. F. & N. P. Railway Co., freight	5 47	
		1,447 57
May 21—American Ventilating Co., contractors	\$500 00	
Payroll, labor on grounds	419 00	
William Green, lumber	440 00	
Geo. P. McNear, cement	344 93	
S. F. & N. P. Railway Co., freight	28 35	
Solomon Jr. Covering Co., covering pipes	27 50	
L. L. Gross, extra tin work	24 90	
James Young, doors, etc.	7 00	
H. S. Gutermute, contractor	1,074 00	
H. S. Gutermute, extras	218 79	
Copeland & Peirce, architects	81 44	
R. W. Bell, ornamental trees	73 00	
Bateman Bros., contractors	1,799 00	
Bateman Bros., contractors	1,988 10	
H. Williamson, assignee of Jas. E. Britt, contractor	334 65	
H. Williamson, assignee of Jas. E. Britt, contractor	650 53	
McCann & McKay, contractors	50 00	
McCann & McKay, contractors	335 00	
		8,396 19
June 11—H. Williamson, extras	\$245 65	
Payroll, labor on grounds	220 80	
Miller, Sloss & Scott, pipe	148 14	
I. P. Kincaid, Superintendent of Construction	57 70	
E. K. Stevenot, surveying	40 00	
C. A. Wright & Co., blackboards	18 75	
		731 04
July 5—Bernhard Mattress Co., beds	\$735 00	
San Francisco Novelty and Plating Co., gas fixtures	256 06	
Payroll, labor on cement work	199 40	
George P. McNear, cement	171 60	
Badlam Bros., gas connections	40 80	
Riley & Loane, lumber	27 00	
Miller, Sloss & Scott, pipe	13 48	
Palace Hardware Co., bolts	2 00	
		1,445 34
July 31—George P. McNear, cement	\$171 60	
Payroll, labor on grounds	145 50	
		317 10
		\$53,113 08

SCHEDULE H.

Recapitulation of Receipts and Expenditures during the Forty-sixth Fiscal Year, ending June 30, 1895.

CR.

1894—June 30—By cash in hands of Treasurer	\$2,825 66
By cash in hands of Trustees	340 60
By cash (coin and warrants) from State Controller, account maintenance, forty-sixth fiscal year.	50,009 53
By cash from State Controller, account erecting girls' wing	53,113 08

SCHEDULE H—Continued.

1894—June 30—By cash from parents and guardians, account tuition and maintenance.....	\$3,349 20
By cash from parents and guardians, account clothing inmates	269 45
By cash, sales of products, rents, etc.....	1,688 07
By cash, interest on special deposits.....	200 00
By cash, special donations	847 50
	<hr/>
	\$112,643 09

Dr.

To cash paid from Institution funds.....	\$4,436 57
To cash paid account maintenance, forty-sixth fiscal year, from State funds.....	50,009 53
To cash paid from State funds, account erecting girls' wing	53,113 08
To cash advanced on claims by Board of Trustees.....	414 41
To cash paid from Institution funds for care of State property at Santa Clara	369 21
To cash paid for clothing of inmates.....	413 30
To cash balance in hands of Treasurer.....	3,886 99
	<hr/>
	\$112,643 09

SCHEDULE I.

Receipts from State Controller on Account of Appropriation for Maintenance for the Forty-seventh Fiscal Year.

1895—Aug. 19—Received cash (warrants) from State Controller	\$2,060 25
Sept. 4—Received cash (warrants) from State Controller	3,479 39
Sept. 18—Received cash (warrants) from State Controller	2,058 90
Sept. 25—Received cash (warrants) from State Controller	2,837 54
Oct. 17—Received cash (warrants) from State Controller	5,133 38
Nov. 23—Received cash (warrants) from State Controller	2,189 65
Dec. 3—Received cash (warrants) from State Controller	3,877 07
Dec. 3—Received cash (warrants) from State Controller	16 50
Dec. 19—Received cash (warrants) from State Controller	2,261 41
Dec. 30—Received cash (coin) from State Controller	3,817 17
1896—Jan. 20—Received cash (coin) from State Controller	4,996 58
Feb. 19—Received cash (coin) from State Controller	2,239 65
Feb. 27—Received cash (coin) from State Controller	3,559 16
Mar. 24—Received cash (coin) from State Controller	5,428 82
April 16—Received cash (coin) from State Controller	5,214 84
May 23—Received cash (coin) from State Controller	4,748 04
June 3—Received cash (coin) from State Controller	204 20
June 12—Received cash (coin) from State Controller	5,267 91
July 20—Received cash (coin) from State Controller	5,004 28
	<hr/>
	\$64,394 74
1895—Aug. 19—Received cash (warrant) from State Controller on account appropriation forty-sixth fiscal year	\$6 40

SCHEDULE J.

Receipts from Other Sources than State Appropriations During the Forty-seventh Fiscal Year.

1895—July 15—By cash, interest on special deposit.....	\$58 33
July 15—By cash, interest on special deposit.....	160 70
July 31—By cash, sale of shoes	7 75
July 31—By cash, sale of farm products	197 63
July 31—By cash, rent of dairy	81 00
Oct. 1—By cash, sales of clothing, etc.....	159 58
Nov. 30—By cash, sales of shoes	12 25
Dec. 31—By cash, sales of clothing	22 00
1896—Jan. 7—By cash, sales of shoes	2 50
Jan. 31—By cash, rent of dairy	243 00
Jan. 31—By cash, rent of State property, Santa Clara	300 00
Jan. 31—By cash, R. P. Hill, Superintendent of Farm, unclaimed wages.....	7 00

SCHEDULE J—Continued.

1896—Jan. 31—By cash, excess in Contingent Fund.....	\$1 20
Jan. 31—By cash, sales of farm produce.....	6 64
Feb. 2—By cash, sales of shoes.....	8 60
Feb. 2—By cash, rent of dairy.....	40 50
Mar. 31—By cash, rent of dairy.....	40 50
Mar. 31—By cash, sale of shoes.....	3 25
May 31—By cash, rent of dairy.....	81 00
June 30—By cash, from parents and guardians, on account tuition and maintenance.....	4,705 25
June 30—By cash, for clothing of inmates.....	357 10
June 30—By cash, special donations.....	757 50
	<hr/>
	\$7,253 28

SCHEDULE K.

Payments from Institution's General Fund for Maintenance During Forty-seventh Fiscal Year.

1895—Aug. 7—S. F. & N. P. Railway Co., freight.....	\$58 49	
Aug. 7—Grace Bros., wood.....	45 72	
Aug. 7—Newman & Levinson, dry goods.....	16 55	
Aug. 7—Geo. H. Worrall, dentistry.....	14 50	
Aug. 7—Bass-Hueter Paint Co., glass, etc.....	10 07	
Aug. 7—Sunset Telephone Co., rent.....	5 00	
Aug. 23—L. L. Gross, repairing roof.....	9 00	\$159 33
Sept. 9—Golden Eagle Milling Co., flour.....	\$101 95	
Sept. 9—Bateman Bros., extras on Girls' Wing.....	188 00	
Sept. 9—C. F. Carmer, repairs on Girls' Wing.....	12 75	
	<hr/>	302 70
Nov. 6—W. & J. Sloane & Co., matting, Girls' Wing.....	\$165 54	
Nov. 6—James Young, moldings, Girls' Wing.....	18 25	
Nov. 6—Dr. A. E. Osborne, Superintendent, contingent expenses.....	13 35	
	<hr/>	197 14
Dec. 10—R. P. Hill, supplies for Manor House.....	\$9 50	
Dec. 23—Grace Bros., cement.....	201 00	
Dec. 23—Geo. P. McNear, cement.....	168 00	
Dec. 31—J. D. Sullivan, labor on concrete work.....	213 16	
Dec. 31—L. L. Solomon, attorney fees.....	57 00	
	<hr/>	648 66
1896—Jan. 31—J. D. Sullivan, labor on concrete work.....	\$333 81	
Jan. 31—Geo. P. McNear, cement.....	168 00	
Jan. 31—Grace Bros., cement.....	189 00	
	<hr/>	690 81
Feb. 8—Grace Bros., cement.....	\$189 00	
Feb. 8—J. D. Sullivan, labor on concrete work.....	141 83	
Feb. 8—Savings Bank of Santa Rosa, discount on State warrants.....	112 77	
Feb. 8—Savings Bank of Santa Rosa, expressage on coin.....	32 90	
Feb. 8—A. P. Overton, traveling expenses.....	29 65	
Feb. 8—J. G. Marcy, repairing tinware.....	3 50	
Feb. 19—J. D. Sullivan, concrete work.....	98 80	
	<hr/>	608 45
Mar. 31—J. D. Sullivan, concrete work.....	\$207 74	
Mar. 31—Geo. P. McNear, cement and lime.....	308 00	
	<hr/>	515 74
Apr. 30—Grace Bros., cement.....	\$165 00	
Apr. 30—J. D. Sullivan, concrete work.....	180 85	
Apr. 30—C. J. Poppe, supplies for Manor House.....	5 00	
	<hr/>	350 85
May 31—J. D. Sullivan, concrete work.....	\$148 50	
May 31—Dr. A. E. Osborne, contingent expenses.....	6 50	
May 31—Home Mutual Insurance Co., insurance on Manor House.....	48 00	
	<hr/>	203 00
June 30—Palace Hardware Co., extra hardware, Girls' Wing....	\$100 00	
June 30—Mrs. Amelia Knapp, honorarium in recognition of services of her deceased husband.....	83 33	
	<hr/>	183 33
		<hr/>
		\$3,860 01

SCHEDULE L.

Payments Made from the State Appropriation for Maintenance During the Forty-seventh Fiscal Year.

1895—Aug. 7—Payroll for Institution, month of July	\$1,764 85	
Payroll for Farm, month of July	295 40	
William Cline, groceries, etc.	629 99	
Bernhard Mattress Co., bedsteads, etc.	401 50	
J. W. Johnson, oak wood	308 75	
Geo. W. Beatty, meats, fish, and ice	225 77	
Louis Waser, milk	206 75	
Murphy, Grant & Co., dry goods, etc.	203 33	
Geo. P. McNear, flour, lime, etc.	139 05	
D. Leppo, dining tables for inmates	126 60	
Buckingham & Hecht, shoe supplies	118 00	
C. F. Carmer, repairing walls, etc.	114 61	
Weyl & Sons, meat, fish, and ice	102 33	
Grace Bros., butter, vegetables, fruit, etc.	91 32	
Golden Gate Woolen Manufacturing Co., blankets	87 50	
Pacific Marine Supply Co., flour	85 00	
Hale Bros. & Co., clothing	56 25	
Miller, Sloss & Scott, hardware, etc.	53 31	
Bass-Hueter Paint Co., paints, floor finish	53 25	
Dr. A. E. Osborne, Superintendent, contingent expenses	51 45	
Armes & Dallam, laundry supplies	45 75	
Troy Laundry Machine Co., supplies	42 71	
Christian Froelich, iron and iron pipe	38 37	
Nathan, Dohrmann & Co., plates, tumblers, etc.	28 55	
M. H. Dignan, drugs, etc.	28 45	
J. R. Allen, labor	27 00	
Gussie Wright, sewing	27 00	
Rohrer, Einhorn & Co., dry goods	25 80	
J. C. Pederson, chamber furniture	21 60	
D. Calloway, labor	21 60	
John G. Iis & Co., repairing kettles	14 30	
Index-Tribune, advertising	21 00	
The Call, advertising	13 60	
Goodyear Rubber Co., sheeting	6 30	
Newman & Levinson, dry goods	6 00	
Will & Finck Co., supplies	4 50	
W. & J. Sloan & Co., rubber binding	3 60	
Holbrook, Merrill & Stetson, kitchen supplies	3 51	
American Tract Society, hymnals for Sunday-school	2 70	
Davis Bros., agate drinking cups	2 40	
C. A. Wright & Co., index books	50	
S. Foster & Co., feed for Farm	18 89	
M. F. Turley, blacksmithing	15 50	
Chas. J. Poppe, supplies	5 00	
		\$5,539 64
Sept. 4—Payroll for Institution, month of August	\$1,762 80	
Payroll for Farm, month of August	296 10	
Bernhard Mattress Co., bedsteads, mattresses	494 60	
H. Weyl & Sons, meats, ice, etc.	261 09	
Pacific Marine Supply Co., flour	224 30	
Louis Waser, milk, etc.	208 30	
Miller, Sloss & Scott, galvanized iron sheeting	191 33	
Grace Bros., butter, eggs, etc.	173 98	
Jacob Fridegar, wood	142 37	
Mrs. P. Malone, wood	136 57	
S. Foster & Co., groceries	112 52	
C. F. Carmer, labor	108 00	
George Riley, wood	87 87	
Golden Gate Woolen Manufacturing Co., blankets	87 50	
Eberhard Tanning Co., leather	69 80	
Geo. P. McNear, cement	63 00	
Pierce Powers, wood	55 25	
Hale Bros. & Co., dry goods	52 64	
William Green, lumber	47 32	
Mack & Co., medicines, etc.	33 75	
F. Duhring, pails, brushes, etc.	33 32	
Dr. A. E. Osborne, Superintendent, contingent	27 45	
J. R. Allen, labor on grounds	26 00	

SCHEDULE L—Continued.

1895—Sept. 4—Troy Laundry Machine Co, laundry supplies	\$23 80	
D. Calloway, labor on grounds	21 60	
Bass-Hueter Paint Co., paints and calcimine	20 00	
Frank Thierkoff, barber's services	12 70	
M. S. Davis, undertaker	11 00	
T. P. Andrews, prints of buildings	10 50	
G. W. Clark & Co., glazed paper for windows	8 96	
R. A. Bourne, shoe findings	8 20	
Sunset Telephone and Telegraph Co., rent	5 00	
Miller, Sloss & Scott, supplies for repairs	3 52	
M. F. Turley, blacksmithing, account Farm	30 45	
S. Foster & Co., feed	19 05	
R. P. Hill, contingent expenses	14 35	
Chas. J. Poppe, supplies	11 45	
		\$4,896 44
Oct. 2—Payroll for Institution, month of September	\$1,776 82	
Payroll for Farm, month of September	296 66	
Pacific Marine Supply Co., flour, gasoline, etc.	326 47	
H. Weyl & Sons, meats, fish, and ice	252 28	
Peyton H. Brooks, coal	200 40	
Louis Waser, milk	195 00	
Grace Bros., butter, provisions, and potatoes	177 90	
S. Foster & Co., groceries	161 85	
Mrs. P. Malone, wood	154 97	
Buckingham & Hecht, shoe supplies	146 00	
Hale Bros. & Co., dry goods, etc.	111 56	
Murphy, Grant & Co., dry goods	102 54	
M. S. Davis, coffins	99 00	
Jacob Fridegar, wood	94 03	
Golden Gate Woolen Manufacturing Co., blankets	87 50	
C. F. Carmer, labor	86 00	
Peter Moore, bread	75 30	
Eberhard Tanning Co., leather	73 58	
Pierce Powers, wood	72 25	
Nathan, Dohrmann & Co., crockery	54 51	
Bass-Hueter Paint Co., glass, etc	51 17	
Bernhard Mattress Co., furniture	50 25	
Geo. Riley, wood	46 32	
Dr. A. E. Osborne, Superintendent, contingent expenses	40 70	
J. Lafferty, wood	40 16	
Miller, Sloss & Scott, hardware	36 78	
Mack & Co., drugs	33 24	
William Green, lumber	25 66	
F. Duhring, brooms, brushes, etc.	25 29	
C. A. Wright & Co., stationery	23 75	
J. R. Allen, labor	22 75	
D. Calloway, labor	20 80	
M. H. Dignan, drugs, etc.	19 15	
Geo. Breitenbach, harness	15 50	
Holbrook, Merrill & Stetson, boiler for range	13 15	
William Cline, groceries	10 45	
W. W. Montague & Co., chamber supplies	9 58	
Badlam Bros., repairs to light plant	8 50	
Bowers Rubber Co., sheeting	7 50	
Schussler Bros., mirrors for sleeping apartments	7 20	
Miller, Sloss & Scott, sheet iron	5 52	
Sunset Telephone and Telegraph Co., rent	5 00	
Statham & Co., piano tuning	5 00	
Goodyear Rubber Co., sheeting	4 57	
Tod & Crawford, firebrick for repairs	4 56	
P. Monahan, poultry	4 20	
Mrs. H. Dalton, poultry	3 90	
S. Foster & Co., feed for farm stock	19 53	
R. P. Hill, contingent expenses	11 48	
M. F. Turley, blacksmithing	8 60	
H. M. Wolcott, peaches	8 50	
		\$5,133 38
Nov. 6—Payroll for Institution, month of October	\$1,868 65	
Payroll for Farm, month of October	321 00	
Pacific Marine Supply Co., flour, gasoline, etc.	362 73	
Grace Bros., butter, provisions, and potatoes	250 08	
H. Weyl & Sons, meats, ice, and fish	249 16	
Hale Bros. & Co., dry goods	223 39	
Louis Waser, milk, etc.	201 50	

SCHEDULE L—Continued.

1895—Nov. 6—Geo. P. McNear, cement	\$187 50	
F. Tonner, uniform suits	177 00	
Geo. Riley, wood	173 25	
P. Malone, wood	165 65	
Peyton H. Brooks, coal	158 38	
G. W. Johnson, wood	148 00	
S. Foster & Co., groceries	149 89	
John G. IIs & Co., repairs to range, etc.	138 05	
W. W. Montague & Co., lavatories, etc.	128 19	
J. D. Sullivan, labor on cement walks	92 85	
Golden Gate Woolen Manufacturing Co., blankets ..	87 50	
Jacob Fridegar, wood	82 00	
C. F. Carmer, labor, mason work	80 00	
Nathan, Dohrmann & Co., crockery	97 93	
Bass-Hueter Paint Co., paints, glass, etc.	71 03	
Dr. A. E. Osborne, Superintendent, contingent expenses ..	59 25	
Hooker & Co., spader for grounds	46 00	
Bernhard Mattress Co., tables	45 00	
Getz Bros. & Co., butter	44 21	
S. F. & N. P. Railway Co., freight	43 02	
Miller, Sloss & Scott, supplies for repairs	39 85	
Pierce Powers, wood	37 19	
Murphy, Grant & Co., dry goods	34 25	
White Sewing-Machine Co., sewing-machine	30 00	
J. R. Allen, labor on grounds	28 50	
Geo. H. Worrall, dentist services	24 00	
Troy Laundry Machine Co., laundry supplies	22 69	
New Home Sewing-Machine Co., sewing-machine	21 75	
David Calloway, labor on grounds	15 20	
Will & Finck Co., knives, clock, etc.	14 50	
Bower Rubber Co., rubber sheeting	12 75	
Mack & Co., drugs, etc.	10 45	
Sonoma Democrat, advertising	10 00	
G. Webb Alexander, school supplies	9 75	
F. Duhring, pails, dusters, and brushes	8 40	
Le Count Bros., stationery	7 14	
Sunset Seed and Plant Co., seed for lawns	6 60	
Sunset Telephone Co., rent	5 00	
Leo. E. Alexander & Bro., typewriter supplies	4 60	
Gladding, McBean & Co., sewer-pipe	3 19	
Wm. Hatteroth, leggin for cripple	2 25	
Chas. J. Poppe, Farm supplies	25 85	
M. F. Turley, blacksmithing	20 35	
S. Foster & Co., feed for stock	19 65	
R. P. Hill, contingent	1 60	
John T. Harrington, Trustee, traveling expenses	16 50	
		\$6,083 22
Dec. 4—Payroll for Institution, month of November	\$1,950 20	
Payroll for Farm, month of November	311 21	
Pacific Marine Supply Co., flour, gasoline, etc.	438 32	
Hale Bros. & Co., dry goods, underwear, etc.	416 44	
Grace Bros., cement, potatoes, butter, etc.	176 01	
S. Foster & Co., groceries	319 22	
E. Convey & Sons, meats, fish, and ice	257 07	
Geo. P. McNear, straw	54 58	
R. J. Dowdall, erecting dam, Sonoma Creek	208 25	
Louis Waser, milk	195 00	
Peyton H. Brooks, coal	164 03	
F. W. Spencer, piano for Assembly Hall	160 00	
F. Tonner, uniform suits	157 50	
Oregon Improvement Co., coal	138 43	
Buckingham & Hecht, shoeshop supplies	123 00	
Byron Mauzy, organ for school	95 00	
Chas. M. Plum & Co., carpets and rugs	93 40	
Golden Gate Woolen Manufacturing Co., blankets	87 50	
J. C. Pederson, bedroom furniture	73 30	
Eberhard Tanning Co., leather	71 87	
Heywood Bros., chairs	65 50	
Miller, Sloss & Scott, supplies for repairs	60 94	
Dr. A. E. Osborne, Superintendent, contingent expenses ..	46 67	
Mrs. Pleasant Wells, turkeys for Thanksgiving	46 20	
Bass-Hueter Paint Co., oil, calcimine, etc.	32 50	
D. Calloway, labor on grounds	26 50	
J. R. Allen, labor on grounds	25 00	

SCHEDULE I.—Continued.

1895—Dec. 4—W. A. Thompson, turkeys for Thanksgiving	\$21 60	
C. F. Carmer, mason work, repairing, etc.	20 00	
Mack & Co., drugs, etc.	19 52	
F. Duhring, brooms and brushes	18 54	
Newton V. V. Smyth, surveying for dam	16 00	
Troy Laundry Machine Co., starch	14 32	
G. W. Clark, coffin	14 00	
A. A. Lamont, lampblack	13 75	
Bowers Rubber Co., rubber sheeting	12 50	
A. P. Overton, Trustee, expenses to Santa Clara	10 50	
W. W. Montague & Co., kitchen utensils	10 40	
W. & J. Sloane & Co., matting	10 13	
R. A. Bourne, shoe findings	8 10	
E. W. Hill, typewriting supplies	6 50	
Sonoma Index-Tribune, advertising	6 00	
William Green, lumber for repairs	5 26	
Sunset Seed and Plant Co., seed	5 00	
Sunset Telephone Co., rent	5 00	
Mrs. H. Dalton, poultry	4 20	
H. M. Wolcott, potatoes	3 80	
C. A. Wright & Co., office supplies	50	
Chas. J. Poppe, Farm supplies	33 89	
S. Foster & Co., feed for stock	19 00	
M. F. Turley, horseshoeing	6 40	
		\$6,078 58
1896—Jan. 2—Payroll for Institution, month of December	\$1,956 95	
Payroll for Farm, month of December	316 96	
Pacific Marine Supply Co., flour, gasoline, etc.	440 39	
Grace Bros., groceries, provisions, etc.	332 20	
E. Convey & Sons, meats, ice, and fish	231 18	
Louis Waser, milk	204 87	
George Riley, wood	201 88	
Oregon Improvement Co., coal	120 73	
S. Foster & Co., groceries	118 67	
S. F. & N. P. Railway Co., freight	103 20	
M. S. Davis, coffins	88 00	
Golden Gate Woolen Manufacturing Co., blankets	87 50	
J. D. Sullivan, repairs, Manor House	82 00	
F. Tonner, uniform suits	74 94	
Buckingham & Hecht, shoes and rubber boots	70 00	
James Young, lumber for repairs	58 85	
H. Weyl & Sons, tallow for soap	52 00	
Mack & Co., drugs, etc.	48 59	
Bass-Hueter Paint Co., glass for repairs	46 39	
Dr. A. E. Osborne, Superintendent, contingent expenses	38 15	
Wm. Green, lumber for repairs	35 11	
Hale Bros. & Co., dry goods	34 65	
John T. Harrington, traveling expenses	19 90	
C. A. Wright & Co., stationery	16 70	
Joshua Hendy Machine Co., blankets for mangle	16 03	
A. J. Weaver, turkeys	13 60	
John T. Harrington, traveling expenses	13 55	
Troy Laundry Machine Co., laundry repairs	11 90	
Gladding, McBean & Co., firebrick for repairs	11 00	
Chas. J. Poppe, grocery supplies	9 32	
A. A. Lamont, lampblack and tar paper	9 15	
Miller, Sloss & Scott, supplies for repairs	8 51	
Roher, Einhorn & Co., dry goods	7 71	
H. Williamson, repairs Manor House	6 50	
J. Wright, turkeys	6 30	
A. A. Lamont, papers, etc., repairs	6 30	
Jacob Fridegar, wood	5 31	
Sunset Telephone Co., rent	5 00	
Le Count Bros., stationery	3 95	
Thos. P. Woodward, traveling expenses	3 75	
L. G. F. Atkins, dry goods	2 10	
S. Foster & Co., barley for stock	19 40	
Geo. Breitenbach, harness repairs	15 70	
M. F. Turley, blacksmithing	15 25	
R. P. Hill, contingent expenses	9 95	
A. W. Weaver, blacksmithing	8 00	
Chas. J. Poppe, supplies	6 74	
J. A. Poppe, supplies	2 25	
		\$4,997 08

SCHEDULE L—Continued.

1896—Feb. 5.—Payroll for Institution, month of January	\$2,239 65	
Peyton H. Brooks, coal	557 50	
Pacific Marine Supply Co., flour, gasoline, etc.	462 66	
S. Foster & Co., groceries	272 38	
E. Convey & Sons, meat, ice, and fish	237 30	
Grace Bros., provisions	229 35	
F. Tonner, clothing	211 00	
Louis Waser, milk	205 20	
Studebaker Bros., cart and harness	86 50	
W. P. Fuller & Co., paints and oil	85 46	
Baker & Hamilton, hardware and agricultural implements ..	85 01	
Golden Gate Woolen Manufacturing Co., blankets	81 25	
Hale Bros. & Co., dry goods	80 67	
Bass-Hueter Paint Co., paints and oil	74 55	
Eberhard Tanning Co., leather	71 10	
A. E. Osborne, Superintendent, contingent expenses	67 65	
Chas. M. Plum & Co., linoleum	63 40	
Buckingham & Hecht, leather and findings	61 83	
J. D. Sullivan, masonry, repairs, etc.	59 74	
Fairbanks, Morse & Co., scales	49 25	
Geo. P. McNear, seed and lime	45 02	
Mack & Co., drugs, etc.	44 27	
Troy Laundry Machine Co., starch, soda, etc.	42 29	
Cunningham, Curtiss & Welch, stationery	39 60	
A. P. Overton, Trustee, traveling expenses	39 25	
Geo. H. Tay Co., flue, ash doors, etc.	33 50	
Goodyear Rubber Co., rubber coats, etc.	30 45	
J. M. Zane, wood	28 50	
John T. Harrington, traveling expenses	22 70	
Geo. H. Fuller Desk Co., office desk and stool	19 50	
Nathan, Dohrmann & Co., burners and lamp chimneys	18 15	
Miller, Sloss & Scott, pipe and fittings	17 57	
Office Specialty Mfg. Co., filing cabinets	17 08	
H. Weyl & Sons, tallow	15 00	
F. Duhring, brooms	14 82	
M. F. Turley, blacksmithing	13 20	
Chas. J. Poppe, flour	10 80	
W. D. Ayres, fish	9 95	
John T. Harrington, traveling expenses	8 70	
American Union Fish Co., fish	8 32	
Le Count Bros., stationery	8 29	
Dunham, Carrigan & Hayden Co., plumbers' tools	6 75	
Holbrook, Merrill & Stetson, fire irons	5 15	
Sunset Telephone Co., rental	5 00	
Chocolate Emulsion Co., medicines	3 90	
R. A. Bourne, shoe findings	3 75	
W. P. Edwards, Secretary, traveling expenses	3 35	
Thos. P. Woodward, Trustee, traveling expenses	2 50	
March 4—Payroll for Institution, month of February	\$2,150 78	\$5,798 81
Pacific Marine Supply Co., flour, gasoline, etc.	494 35	
S. Foster & Co., groceries, meal, and feed	356 13	
Bernhard Mattress Co., bedsteads and mattresses	274 25	
Louis Waser, milk	207 75	
E. Convey & Sons, meat and ice	191 42	
Buckingham & Hecht, shoe uppers	171 00	
Peyton H. Brooks, coal	158 40	
Samuel Simmons, horses	150 00	
Grace Bros., potatoes, butter, and eggs	134 40	
Hale Bros. & Co., dry goods	131 53	
Stephen Wilson, painting Manor House	120 00	
W. H. Brayton, fire extinguishers	106 50	
Golden Gate Woolen Manufacturing Co., blankets	81 25	
S. F. & N. P. Railway Co., freight	77 25	
Dr. A. E. Osborne, Superintendent, contingent expenses	67 90	
Belden & Hehir, horse, saddle, and bridle	67 50	
Geo. H. Tay & Co., sinks and kitchen utensils	60 03	
Bush & Mallett Co., two wood mantels	60 00	
Bass-Hueter Paint Co., paints and oils	49 66	
John G. Ils & Co., kitchen utensils, etc.	44 70	
R. J. Dowdall, balance of contract	37 25	
Nathan, Dohrmann & Co., crockery	25 29	
Cunningham, Curtiss & Welch, stationery	22 95	
Miller, Sloss & Scott, hardware and tools	22 88	

SCHEDULE L—Continued.

1896—March 4—John T. Harrington, traveling expenses	\$18 55	
Napa Insane Asylum, brick	16 00	
H. Weyl & Sons, tallow	15 00	
Mack & Co., drugs and medicines	14 30	
American Union Fish Co., fish	13 56	
M. F. Turley, horseshoeing and repairs	12 40	
F. Duhring, brooms, brushes, etc.	8 05	
Meyer Bros. Drug Co., medicines	8 00	
Goodyear Rubber Co., rubber sheeting	7 85	
Taylor & Taylor, skids	7 76	
Sunset Telephone Co., rent	5 00	
C. G. Wickson & Co., hardware	5 00	
Geo. P. McNear, bran	4 38	
F. Berka, plaster	3 50	
Edward W. Hill, ribbons for typewriter	2 70	
Thos. P. Woodward, traveling expenses	2 40	
Sunset Seed and Plant Co., vegetable seeds	1 35	
R. A. Bourne, shoemaking machinery	1 35	
Mrs. P. Malone, brick and poultry	18 50	
		\$5,428 82
April 2—Payroll for Institution, month of March	\$2,309 08	
Pacific Marine Supply Co., gasoline and flour	375 98	
Peyton H. Brooks, coal	323 20	
S. Foster & Co., groceries and feed	241 15	
G. W. Beatty, meat, ice, and tallow	236 67	
Louis Waser, milk	225 07	
J. D. Sullivan, labor, repairing chimney	210 25	
Oregon Improvement Co., coal	201 63	
Grace Bros., butter, eggs, etc.	197 05	
S. F. & N. P. Railway Co., freight	112 18	
Geo. H. Tay Co., steam kettles	87 50	
Golden Gate Woolen Manufacturing Co., blankets	81 25	
Sunset Telephone Co., rent of instruments	77 00	
Dunham, Carrigan & Hayden Co., hardware, etc.	74 79	
Hale Bros. & Co., dry goods	72 54	
Bass-Hueter Paint Co., paints and brushes	70 90	
Dr. A. E. Osborne, contingent expenses	45 00	
M. S. Davis, burial cases	33 00	
Mack & Co., drugs	27 34	
Gladding, McBean & Co., sewer-pipe	26 77	
Callustro Co., soap and polish	26 50	
R. A. Bourne, shoe findings	22 40	
F. Duhring, brushes and milkpans	20 50	
Mrs. P. Malone, bricks	20 00	
R. R. Reibenstein, Trustee, traveling expenses	19 55	
American Union Fish Co., fish	17 96	
Industrial Home for Adult Blind, brooms	13 20	
Bernhard Mattress Co., chair seats, etc.	8 00	
Whitaker & Ray Co., school supplies	7 81	
M. F. Turley, horseshoeing	5 80	
Sunset Seed and Plant Co., seed	5 22	
O'Connor, Moffatt & Co., dry goods	5 10	
Bolander & Perkins, mill work	4 70	
F. Tonner, clothing	4 00	
Le Count Bros., stationery	2 25	
Chas. J. Poppe, sundries	2 20	
Palace Hardware Co., hardware	1 30	
		\$5,214 84
May 6—Payroll for month of April	\$2,295 53	
Pacific Marine Supply Co., flour, gasoline, etc.	406 08	
Grace Bros., butter, eggs, etc.	265 58	
Louis Waser, milk	216 50	
Sonoma Lumber Co., lumber	204 20	
F. Tonner, clothing	203 63	
S. Foster & Co., groceries and feed	195 11	
G. W. Beatty, meat	190 92	
Peyton H. Brooks, coal	159 20	
Hale Bros. & Co., dry goods	127 79	
Nathan, Dohrmann & Co., crockery	80 83	
Belden & Hehir, harness, etc.	59 00	
Jacob Wick, leather	56 75	
Will & Finck Co., cutlery and kitchen ware	56 05	
Dr. A. E. Osborne, Superintendent, contingent expenses	52 58	
Mack & Co., drugs	43 47	

SCHEDULE L—Continued.

1896—May 6—O'Connor, Moffatt & Co., dry goods	\$38 55	
Gladding, McBean & Co., sewer-pipe, etc.	33 75	
Buckingham & Hecht, shoe findings	27 00	
D. Leppo, furniture	25 85	
Frank Shantz, hospital sheets	24 30	
American Union Fish Co., fish	24 24	
Crane Company, iron, steel, and tools	22 32	
H. Weyl & Sons, tallow	19 00	
Union Ice Company, ice	16 82	
John T. Harrington, traveling expenses	14 50	
Troy Laundry Machine Co., starch	14 45	
F. Duhring, brushes, etc.	13 40	
Le Count Bros., stationery	11 48	
Whitaker & Ray Co., school supplies	8 86	
A. W. Weaver, blacksmithing	8 75	
R. R. Reibenstein, traveling expenses	7 75	
Sonoma Preserve Company, pickles	7 50	
M. F. Turley, horseshoeing	7 30	
Sunset Telephone Co., rent	5 00	
W. P. Edwards, Secretary, contingent expenses	4 30	
R. A. Bourne, shoe findings	3 90	
		\$4,952 24
June 3—Payroll for month of May	\$2,320 75	
Pacific Marine Supply Co., flour and gasoline	321 70	
S. Foster & Co., groceries and feed	259 47	
Louis Waser, milk	224 65	
Grace Bros., butter, eggs, and provisions	212 64	
F. Tonner, clothing	205 50	
Geo. W. Beatty, meat and tallow	198 28	
Peyton H. Brooks, coal	198 00	
Hale Bros. & Co., dry goods	139 27	
Troy Laundry Machine Co., laundry machinery	130 00	
Trembley, Wylie & Co., farm wagon	110 00	
M. S. Davis, burial cases	99 00	
O'Connor, Moffatt & Co., dry goods	88 05	
C. E. Haven & Co., mower and rake	85 00	
Mack & Co., medicines	84 16	
Pacific States Type Foundry, typewriter	70 50	
Bass-Hueter Paint Co., paints and glass	69 70	
W. G. Stafford & Co., coal	65 65	
P. Berwin & Bros., straw hats	59 75	
Dr. A. E. Osborne, Superintendent, contingent expenses	50 95	
Crane Company, pipe and fittings	32 70	
Whitaker & Ray Co., school supplies	22 25	
Le Count Bros., stationery	21 03	
American Union Fish Co., fish	18 12	
John T. Harrington, traveling expenses	17 85	
W. J. Ping, traveling expenses	15 70	
Dunham, Carrigan & Hayden Co., hardware	15 45	
Industrial Home for Adult Blind, brooms	13 20	
J. Phillips, cutting hay	12 00	
Union Ice Co., ice	11 70	
Chas. J. Poppe, groceries and eggs	11 41	
R. R. Reibenstein, traveling expenses	10 00	
Palace Hardware Co., lock	10 00	
Goodyear Rubber Co., rubber sheeting	10 00	
American Oil Co., oil and waste	9 75	
F. Duhring, brushes	9 50	
M. F. Turley, horseshoeing	8 30	
Geo. H. Tay Co., leader pipe	5 65	
Sunset Seed and Plant Co., seeds	5 28	
Sunset Telephone Co., rent	5 00	
W. P. Edwards, contingent expenses	2 80	
R. A. Bourne, shoe findings	2 75	
E. W. Hill, typewriter supplies	2 75	
L. G. F. Atkins, potatoes	1 70	
		\$5,267 91
July 1—Payroll for month of June	\$2,375 15	
S. Foster & Co., groceries and feed	519 96	
Samuel Simmons, horses	300 00	
Pacific Marine Supply Co., flour and gasoline	296 48	
Geo. W. Beatty, meat and tallow	249 10	
Louis Waser, milk	216 00	
Grace Bros., butter, eggs, and provisions	206 03	

SCHEDULE L.—Continued.

1896—July 1—Buckingham & Hecht, shoe findings	\$158 40
W. & J. Sloane & Co., cocoa matting	69 83
Eberhard Tanning Co., leather	66 56
M. F. Turley, blacksmithing, etc.	60 95
S. F. & N. P. Railway Co., freight	55 37
Crane Company, pipe fittings, etc.	50 42
R. P. Hill, contingent expenses	49 51
J. McAndrews, baling hay	41 00
Mack & Co., medicines	36 15
Holbrook, Merrill & Stetson, icecream freezers	28 00
Sunset Telephone Co., rent and repairs	22 70
Hale Bros. & Co., dry goods	20 27
Union Ice Company, ice	19 45
The Evening Post, advertising	18 00
W. M. Ryan, leading horses	17 35
Troy Laundry Machine Co., starch	14 75
John T. Harrington, traveling expenses	17 00
Sonoma Democrat Publishing Co., advertising	12 50
R. R. Reibenstein, traveling expenses	9 00
A. Paladini, fish	8 50
H. V. Weber, horseshoeing	8 00
Emil Jacobsen, halters and rope	7 45
Wm. P. Edwards, contingent expenses	7 35
Gorham Rubber Factory, rubber sheeting	7 20
James Malone, raking hay, etc.	7 00
Ohmen Engine Works, repairs	6 00
Crocker-Langley Directory, San Francisco Directory	5 35
Harlan Bros., livery	5 00
Dunham, Carrigan & Hayden Co., hardware	4 95
Le Count Bros., stationery	3 55
J. V. Miner, eggs	3 00
Will & Finck Co., battery zincs, etc.	1 00
	<hr/> \$5,004 28

SCHEDULE M.

Classified Expenditures during Forty-seventh Fiscal Year.

Salaries	\$25,148 26
Groceries	2,798 24
Meats	3,366 40
Vegetables	850 96
Dairy supplies	3,850 51
Flour	2,730 86
Laundry supplies	582 13
Farm	2,209 16
Drugs and medicines	481 99
Stationery	172 29
Telephone and telegraph	211 25
Postage	249 73
Expressage, freight, etc.	579 04
Dry goods	1,762 44
Shoes, findings, etc.	1,335 34
Clothing	1,596 93
Furniture	3,387 82
Traveling expenses	16 50
General expenses	5,328 04
Fuel	4,511 50
Light	2,156 12
Brushes, brooms, etc.	87 20
Crockery	397 71
Hardware	328 82
Wagons and harness	255 50
	<hr/> \$64,934 74

SCHEDULE N.

Recapitulation of Receipts and Expenditures During the Forty-seventh Fiscal Year, ending June 30, 1896.

CR.

1895—June 30—By cash in hands of Treasurer.....	\$3,886 99
By cash in hands of Trustees.....	414 41
Aug. 1—By cash warrant No. 2023 from State Controller, account maintenance forty-sixth fiscal year.....	6 40
1896—June 30—By cash in coin and warrants from State, account maintenance forty-seventh fiscal year.....	64,394 74
By cash from parents and guardians for clothing, etc..	357 10
By cash from parents and guardians, account tuition and maintenance of inmates.....	4,705 25
By cash from sale of products.....	428 40
By cash from rent.....	786 00
By cash from special donations.....	757 50
By cash from interest on special deposits.....	219 03
	<hr/> \$75,955 72

DR.

To cash paid from Institution funds, account main- tenance forty-seventh fiscal year.....	\$3,860 01
To cash paid maintenance forty-sixth fiscal year from State funds.....	6 40
To cash paid from State funds, account maintenance forty-seventh fiscal year.....	64,394 74
To cash advanced on claims, Board of Trustees.....	883 80
To cash paid from Institution funds for care of Santa Clara property.....	234 45
To cash paid for clothing and dentistry.....	225 40
To cash in hands of Superintendent.....	339 50
To cash in hands of Treasurer.....	6,011 42
	<hr/> \$75,955 72

November 2, 1896.

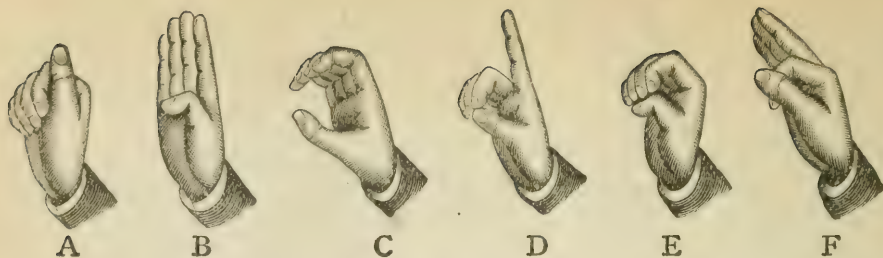
To the President and Board of Trustees of the California Home for the Care and Training of Feeble-Minded Children :

GENTLEMEN: I have examined the vouchers at the Home, balanced the bank account, and find all moneys collected accounted for by vouchers on file, and money in bank at Santa Rosa.

Respectfully submitted.

(Signed:) L. WADHAM,
Accountant.





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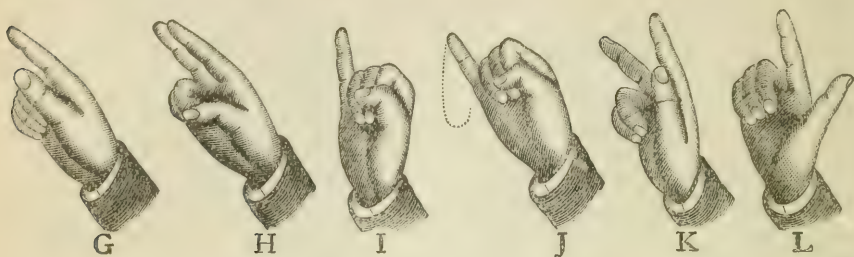
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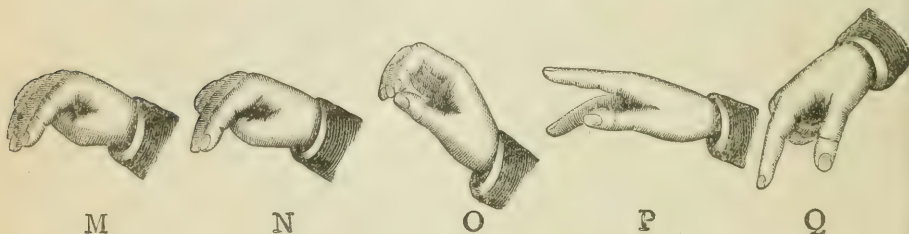
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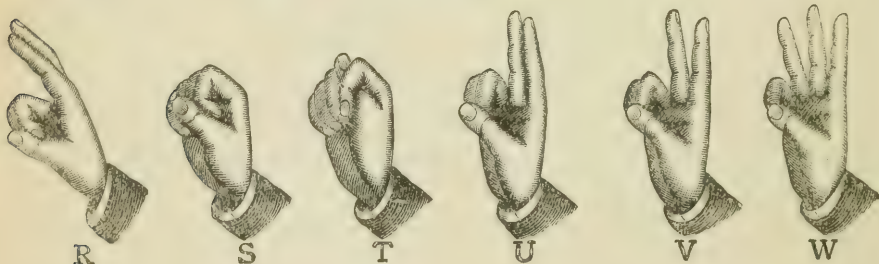
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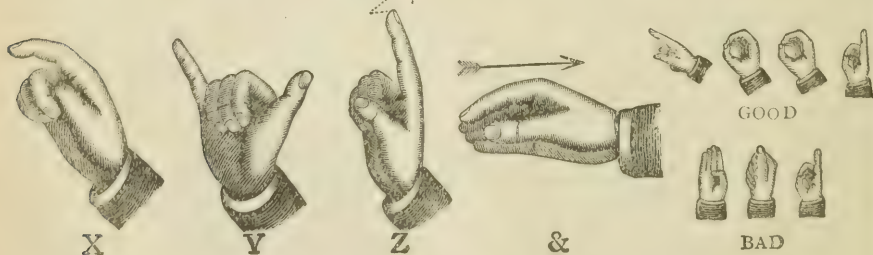
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TWENTY-SECOND REPORT

OF THE

BOARD OF DIRECTORS AND OFFICERS

OF THE

California Institution for the Education of the Deaf
and Dumb, and the Blind,

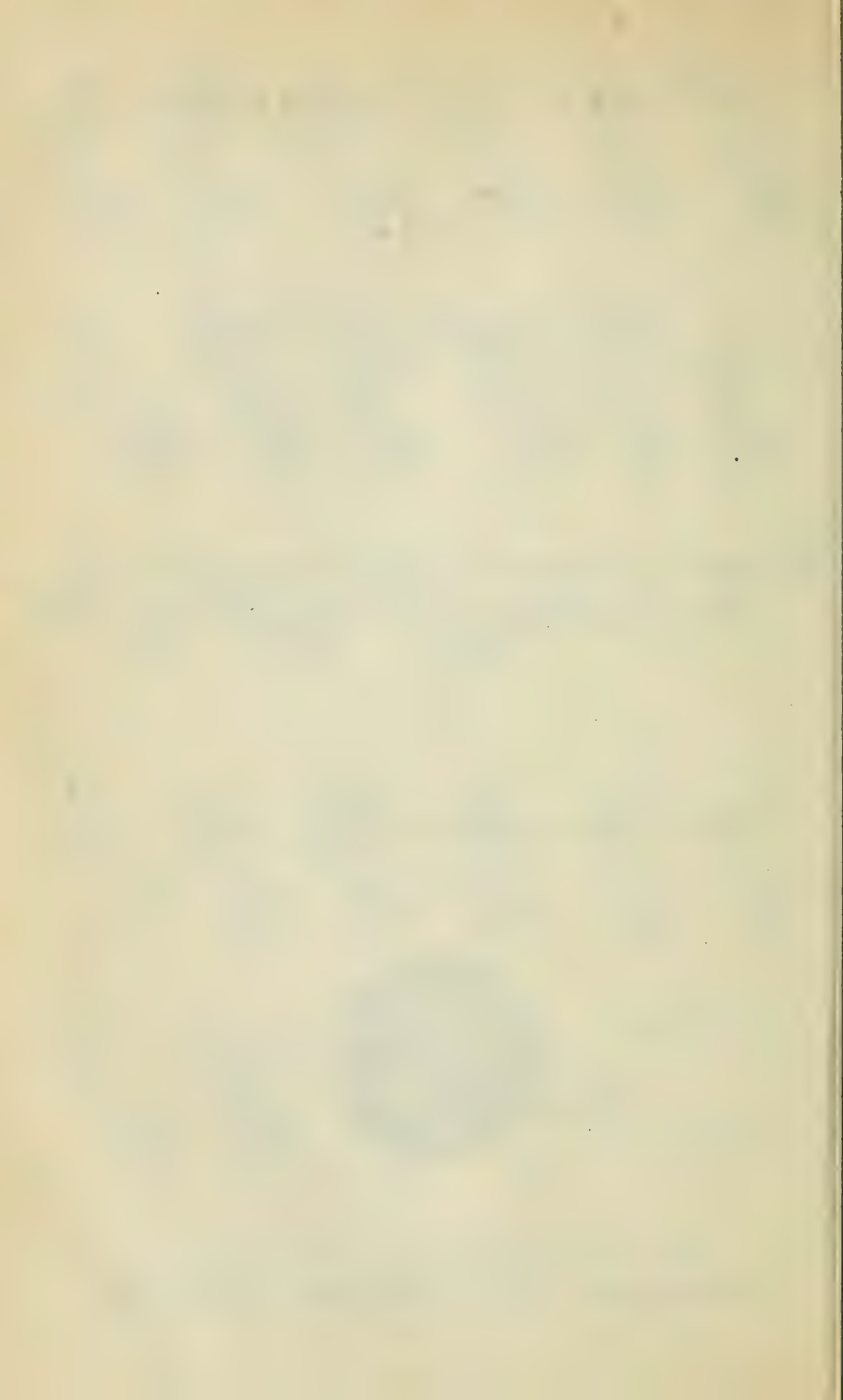
FOR THE

TWENTY-FOUR MONTHS ENDING JUNE 30, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.
1896.



BOARD OF DIRECTORS.

WILLIAM C. BARTLETT.	Oakland.
J. K. McLEAN.	Oakland.
WARREN OLNEY.	Oakland.
A. J. RALSTON.	Oakland.
BREWTON A. HAYNE.	Berkeley.
W. L. PRATHER.	Secretary and Treasurer.

OFFICERS OF THE INSTITUTION.

PRINCIPAL.

WARRING WILKINSON.

PRINCIPAL'S ASSISTANT.

WILLIAM A. CALDWELL.

TEACHERS OF THE DEAF.

WILLIAM A. CALDWELL, M.A.,	FRANK O'DONNELL,
CHARLES S. PERRY, M.A.,	THEOPHILUS D'ESTRELLA,
THEODORE GRADY, B.L.,	HENRY FRANK,
MARY A. DUTCH,	LAURA NOURSE,
HARRIET C. GOODE,	CORNELIA S. GOODE,
CORDELIA L. BENNET.	

TEACHERS OF ARTICULATION.

NATHAN F. WHIPPLE,	LIZZIE MOFFAT.
--------------------	----------------

TEACHERS OF THE BLIND.

CHARLES T. WILKINSON,	ALICE C. PARKER,
MARY W. EASTMAN.	

TEACHER OF MUSIC.

OTTO FLEISSNER.

TEACHER OF PHYSICAL CULTURE.

E. H. BARKER.

B. P. WALL	Physician.
DOUGLAS KEITH	Clerk.
CHARLES KOCH	Boys' Supervisor.

MATRONS.

Miss M. J. WISEMAN,	Miss M. G. BROWN,
Mrs. A. F. MUNROE,	Miss M. E. SHARR,
Miss C. C. ALBERS.	

J. C. JENSEN	Foreman Carpenter Shop.
HORACE OWEN	Foreman Printing Office.
FRED HANSEN	} Engineers.
JOHN TREVETHAN	

REPORT.

To his Excellency JAMES H. BUDD, Governor:

SIR: The Board of Directors of the California Institution for the Deaf and Dumb, and the Blind, herewith submit their report for the two years ending June 30, 1896. The total number of pupils under instruction in all departments was 257. The total number in attendance at this date is 220.

The buildings are now ample for the accommodation of pupils, teachers, and attendants, with one exception. A small hospital structure is very much needed for the isolation and treatment of contagious diseases. Pupils who are drawn from all parts of the State frequently bring with them a tendency to such local diseases as prevail in the vicinity of their homes. It is impossible to secure, in crowded dormitories, such isolation from infectious diseases as the most prudent sanitary precautions would suggest. On two or more occasions such diseases have assumed an epidemic character. Without facilities for hospital isolation, there is always more or less danger that an epidemic might suspend the regular work of the school for the greater part of a term.

The manual training department of the school requires some additional facilities to secure the best results. In the boys' division the chief instruction is given in wood-working and printing. These departments ought to be enlarged. More tools are needed, and more resources furnished for original work. Every deaf-mute pupil should have elementary instruction in some trade or vocation, whereby independence would be secured, by ability to enter at once upon skilled industry.

Every year judicious improvements add to the attractiveness of the grounds of the Institution, while nothing has been done for the improvement of the ungraded street in front of the buildings, for lack of funds. The street, by reasonable improvement, should be brought into more harmonious relation to the character of this public Institution. The front fence, originally a mere temporary erection, is now in a decaying condition, and should give place to a permanent stone or iron fence—an improvement which has been too long delayed.

The Directors express their satisfaction with the present condition of the school, and with the results that have been obtained from year to year. They are confident that, under the wise and efficient supervision of the Principal, this school justly has a place in the front rank of similar institutions in this country.

For a more detailed statement, we refer to the report of the Principal, which is made a part of our own, and is herewith respectfully submitted.

WM. C. BARTLETT,
President of the Board.

REPORT OF THE PRINCIPAL.

To the Board of Directors of the California Institution for the Deaf and Dumb, and the Blind:

GENTLEMEN: I have the honor herewith to submit the biennial report of the Institution for the Deaf and Dumb, and the Blind, giving in detail its conduct and expenditures for the two years ending June 30, 1896; also an estimate of its needs for the two years ending June 30, 1898. The movement of population for the time under review is as follows:

On rolls June 30, 1894:

DEAF AND DUMB.		
Boys	84	
Girls	59	
		143
BLIND.		
Boys	28	
Girls	24	
		52
Total both classes		195

The admissions since same date have been:

DEAF.		
Boys	32	
Girls	18	
		50
BLIND.		
Boys	8	
Girls	4	
		12
		62
Total under instruction for two years		257

There have been graduated and discharged during the same period:

DEAF.		
Boys	24	
Girls	17	
		41
BLIND.		
Boys	9	
Girls	6	
		15
Total deductions		56
On rolls June 30, 1896		201
Admitted since opening of term		26
		227
Discharged since opening of term		7
On rolls at date of report		220

The estimates of numbers and per capita cost presented in the twenty-first report for the consideration of the Legislature have been verified to a remarkable degree. In that report I asked for \$119,300, or provision for 210 pupils during the forty-seventh fiscal year, and 220 pupils for the forty-eighth fiscal year, with an average per capita for the period ending June 30, 1897, of a trifle less than \$278. The number enrolled during the year ending June 30, 1896, was 219, with an average attendance of 208. The total expenditure was \$57,615 99, giving a per capita cost of \$276 95. This is about \$1 less per capita than was asked for. We begin the present year with an enrollment of 220, which will give the average attendance something over 220 pupils for the year ending June 30, 1897; but I am confident that we shall be able to live within the appropriation, and close the fiscal period without a deficit, and thus continue the record of thirty-two years of living within our income.

In this connection it should be remembered that the expenditures detailed in our dissected accounts include the keeping of the Institution in repair. When a new building or other permanent equipment is required, it is the duty of the Legislature to appropriate money therefor, but when completed, it seems to me to be a part of the "support" of the Institution to keep such equipment in ordinary repair. This view I have reason to think is approved by his Excellency, Governor Budd, and by the State Board of Examiners, and has always been the policy of the Directors.

HEALTH.

A boarding-school where vigorous physical health among the pupils is lacking, can never produce the best results intellectually. We are glad to say that during the two years under review, there is good evidence to prove that the regimen and care of the pupils have been such as to conduce to physical well-being and resistance to disease. In the latter half of the academic year ending in June, 1895, a severe test was put upon our pupils by an epidemic of measles, which prostrated fifty-two children before the disease was terminated, apparently for lack of further material. Not the slightest ill effect followed the outbreak of this ailment, which is often so serious when the patient is non-resistant by reason of mal-nutrition or neglect. Seven cases of scarlet fever followed the outbreak of measles, some of them of great severity, and when one considers our lack of hospital accommodations and facilities for treating a contagious disease, it is a matter of congratulation that no death occurred, and that we escaped a general epidemic which might have caused a temporary closing of school. We feel constrained, however, to urge again upon the Legislature the great need of a hospital, segregated from the other buildings and the children. If this need does not

commend itself to the members of the Legislature, I can add nothing to the reasons given in our twentieth and twenty-first reports for this important item in the equipment of a large school.

After the last report was in the hands of the printer, we were called to mourn the death of one of the oldest and most faithful teachers in the corps of instructors, Mr. George B. Goodall, who had been in the service of the Institution twenty-one years. Mr. Goodall was a man of large scholastic attainments, of gentle nature, sympathetic, and patient in his work. The loss to the Institution and to his fellow laborers was keenly felt, and his death has left a vacancy in the profession not easily filled. The other changes in the personnel of the Institution have been few. Miss H. L. Campbell, of the blind department, resigned to enter another sphere of life, and her place has been satisfactorily filled by the appointment of Miss Alice Parker. For the new year, I have engaged the services of Miss Cornelia S. Goode, formerly of the Illinois and Pennsylvania Institutions for the Deaf; Miss Harriet C. Goode, formerly of the Indiana Institution, and Miss Cordelia L. Bennett, who, through the courtesy of Dr. Crouter, Principal of the Philadelphia School, was given the opportunity for several months of studying the methods pursued in that excellent establishment.

THE SCHOOLS.

The schools are the "reason for being" of the Institution; but for them the deaf and the blind might as well stay at home, or if they had no home, they could as well be housed and fed at public expense in local almshouses, and at much less outlay of money. The work of the classroom becomes therefore of primary importance, and the value of the Institution must be judged, not by the per capita cost of its pupils, but by their intellectual and moral worth, which is the outcome of faithful instruction. By this standard I may fairly claim that our work for the past two years has been excellent. The teachers have been earnest, conscientious, and painstaking; the pupils, as a rule, have been docile and studious, and the results commendable. To say we have reached my ideal would not be true, for that would be a confession of incipient decadence. In the nature of things, the education of the deaf and the blind, like the squaring of a circle, is never more than an approximation. The problem is never completely solved. Every pupil offers a new equation to be satisfied by new methods, and it is this opportunity and calling for infinite ingenuity on the part of the instructor that makes teaching the deaf—to him who is born to it—so strangely fascinating. No other work brings such joy and satisfaction. It has its disappointments, sometimes failures, but these are common experiences to all human endeavor, and count little in the grand results which crown the faithful teacher's life and labors.

By the recent addition to the corps of instructors, it will be possible to decrease the size of the lower classes, but the upper classes are still too large. Eighteen pupils to one teacher is out of all reason. When I see schools like the admirable institution at Northampton with classes of from six to ten pupils each, I am constrained to wonder what would be the result in a sign school with an equivalent teaching force. A matter of statistics bearing upon this subject will not be out of place here, and may interest the public. There are in the world 474 schools for the deaf, with an attendance of 32,483 pupils, and employing 3,855 teachers, or an average of 8.4 pupils to each teacher. Of these schools 100 are in America, 97 in Germany, 70 in France, 51 in Italy, and 31 in Austria-Hungary.*

We need, then, more teachers; but at present I suppose it is idle to expect to reduce our classes below an average of fifteen pupils each.

But apparatus we must have, if our work is to be what it ought to be. We have no physical apparatus, few maps, no illustrations of physiology and natural history, and nothing in the way of collections, and these are all necessary to effective work in the class-room. I therefore renew the request urged in the twenty-first report for \$1,500 to be expended in purchasing school apparatus.

The summer of 1896 was made somewhat notable in the history of the Institution by the fact that three former pupils graduated; two, Miss Christine Labarraque and Mr. Newel Perry, at the State University, and one, Mr. Cecil Smith, at Stanford. Miss Labarraque has determined to follow the legal profession, and is now in the Law College in San Francisco. Mr. Smith has gone to the Harvard Law School for the same purpose, while Mr. Perry has been appointed to a fellowship in the State University, and is teaching mathematics, at the same time pursuing a post-graduate course in advanced mathematics, preparatory to going abroad. These three are blind. Mr. James Howson, a talented deaf graduate of the Institution, is now a member of the Junior class of the University, classical department, and maintains a most creditable standing. Mr. W. S. Runde, also deaf, has entered Gallaudet College, Washington, D. C., this fall, and will be followed next year by two deaf young ladies who have already passed the preliminary examinations.

In this connection it seems proper to correct a misapprehension on the part of many people concerning the status of this Institution. The idea is quite prevalent that the Institution is an asylum—an eleemosynary establishment where the deaf and blind are housed and sup-

* The figures are from a recent report issued by the Volta Bureau at Washington, D. C. This Bureau was established and is maintained by the liberality of Prof. Alexander Graham Bell, and has come to be the great repository of everything pertaining to the deaf. Its value is inestimable even now, and will increase as the years go on. The Bureau is housed in a fire-proof, isolated building, and is under the superintendency of John Hitz, Esq.

ported because of their helplessness, after the manner of the patients in the "Little Jim Ward" of the Children's Hospital. Nothing could be further from the truth. This Institution is a school, a legitimate and necessary part of the educational system of the State, where deaf and blind children may come and obtain the instruction which by reason of their infirmity is denied them in the common schools. The Institution has no place among the charities and reformatories of the State. Its pupils are neither sick nor insane, nor idiotic nor criminal. They come to us at seven or eight years of age, graduate at nineteen, and henceforth take their places in the productive forces of the commonwealth and do their part as manfully and as creditably as any class of citizens in California. They come from all ranks of life: the rich, the well-to-do, the poor. None are exempt by right of birth. There is no blood spot upon the lintel of any household to warn away the scourge of scarlet fever, spinal meningitis, or the various instrumentalities of disease and accident by which deafness or blindness is caused. No one knows how soon he may need for his own loved offspring the beneficence which this Institution offers to its pupils, and to put the stigma of charity upon the parents or children thus sorely afflicted is unjust, unless we are willing to admit that all public education is eleemosynary, and that the primary, grammar, high, and normal schools, and the University itself, are all charities because education therein is free.

I am glad to say that the great State of New York has set a noble precedent in this matter. In the codification of the Charities Law of 1896, the first line says, "Institutions for the instruction of the deaf are excepted from the term charitable institutions, as used in this chapter." This is in keeping with a decision rendered by the Supreme Court in a case brought to determine whether a school for the blind was a charity, and thus within the operations of the Charities Law. The learned Judge says: "The ruling purpose of all legislation upon the subject is to *educate*, not to bestow alms. The provisions for maintenance are subordinate and incidental to this object, and are therefore insufficient and inappropriate to determine a classification of the Institution more than its primary object logically requires." This paragraph from the decision seems to answer the argument sometimes made that other public free schools do not provide board as well as tuition, and that the Institution is a charity to the extent that it feeds and houses its pupils.

But it is sometimes asked, "Ought not the rich to pay for the maintenance of their children, even if the tuition be free?" It is a pertinent question, and is entitled to respectful consideration. Nobody in these days doubts the duty of the State to provide for the education and maintenance of those deaf and blind children whose parents or guardians may not be able to pay for such education, but there seems to be an element of justice in requiring those who have the means to pay for the

support of their children while in the Institution. The matter has been discussed in many Legislatures, and the consensus of opinion, as evidenced in legislative action, is in favor of making maintenance as well as tuition free. The reasons are:

First—The small income which would be derived from pay-pupils* would not compensate for the class distinctions which would inevitably creep into the school. No one now can claim special privileges by reason of wealth. Rich and poor sit at the same table, eat the same food, occupy the same dormitory, and are taught by the same teachers. No one is released or exempt from certain duties because he “pays”; no one is called upon to perform certain functions in the household economy because he is poor. No parent can claim, ask, or obtain special privileges because he is able and willing to pay for them. This desirable equality would be jeopardized, to say the least, by exacting fees from parents who have money.

Second—Experience has proven that parents will not go before a court and confess to poverty. The great majority of our pupils are the children of respectable, hard-working people, farmers, laborers, mechanics, clerks, ministers, and men of limited income, but honest, law-abiding, debt-paying citizens, who would refuse to go before a Superior Judge and plead pauperism for a permit to have their children admitted to the Institution. It may be a mistaken pride—I don’t think it is—but the feeling exists, and cannot be overcome. The experiment of “pay-pupils” has been tried twice in one of the Western institutions, and each time nearly broke up the school, and the law was repealed at the following Legislature.

Third—The precedent of other States is against such action. Except in the Institutions which are incorporated, and whose property vests in a private Board of Directors, as is the case in New York, Pennsylvania, and the New England States, schools for the deaf and the blind in nearly

*NOTE.—In the New England States, New York, and Pennsylvania, the institutions for the deaf and the blind are private corporations with endowments, and the State pays so much for each child. I have taken the pains to look up the proportion of income derived from pay-pupils in these schools. The figures are taken from the latest report on hand:

	Total Income.	From Pay Pupils.	Percentage.
<i>New York—</i>			
N. Y. C., 162d Street	\$103,441 00	\$986 00	.0095
N. Y. C., 31st Street	77,049 00	833 00	.01
Rochester	58,806 00	.....	.00
Rome	40,296 00	.....	.00
<i>Pennsylvania—</i>			
Philadelphia Blind	70,296 00	188 00	.0026
Philadelphia Deaf	122,463 00	2,937 00	.024
Pittsburg	27,839 00	.....	.00

all States offer their benefits free to deaf or blind children whose parents or guardians are residents of the commonwealth.

Fourth—The rich man claims that he is compelled to pay taxes for the support of all the children in the Institution, and that when his own child requires the training of the school, he ought not to be obliged to pay in addition to his taxes an extra sum for its support.

It is gratifying to report that the appropriation for maintenance of this Institution made by the last Legislature has sufficed, and I do not think it will be necessary to ask for any increase for the two years ending June 30, 1899. Of course any great rise in prices would make it difficult to provide for the pupils which, by the inexorable ratio of increase, will apply for admission. I estimate the attendance for the forty-ninth fiscal year at 225 pupils, and for the fiftieth fiscal year at 235 pupils, or an average attendance of 230. At a per capita of \$260, there will be required for the support of the Institution \$119,300. In undertaking to conduct the Institution upon this low per capita basis, the Board is jeopardizing its record of never having a deficit, but in view of the stringency of the times I think it is worth while to take the risk. That the basis is very low is shown by the following figures, taken from the report of the New York State Board of Charities, which comes to me as I write; the table gives the per capita cost in seven Institutions in that State:

162d Street, New York (less clothing)	\$312 45
Buffalo	253 89
Lexington Avenue, New York (less clothing)	249 23
Fordham (less clothing)	239 33
Rome (less clothing)	284 16
Rochester	300 27
Malone	331 60
Showing an average per capita of	281 56

The high per capita of the Institution at Malone is due to the small number of pupils. The low cost at Buffalo and Fordham is due to the small cost of service, which the benevolent Brothers and Sisters donate.

I do not quote these figures with any intention of making comparisons unfavorable to other schools, or to parade my own economical administration. There is no place where figures can be "made to lie" more effectually than in comparisons of cost in public institutions. To get at the economy of an administration, one must take into account the factors of environment and efficiency. No two institutions are surrounded by the same conditions; for instance, in Illinois and the neighboring States the cost of coal is from \$1 60 to \$2 per ton; in California it is from \$7 to \$8 per ton, and yet this bald statement does not convey the economic truth, for the apparent difference is offset in a measure by a better coal and a milder winter climate on the Pacific Coast. Wages of servants in the South and Middle West run from \$6

to \$12 per month; in California, \$25 is the generally established rate. Proximity to sources of supply plays an important part in cheapness of living. A small number of pupils cost relatively more than a large number, for the fixed expenses of management are about the same for one hundred as for five hundred, and so there are many other factors which need to be known and considered in order to reach a correct judgment as to the relative cost of support; and I quoted the per capita of the New York schools merely to show the arduous task which the Directors will assume in approving my estimates for the next two years.

Two years of wear and tear have increased the need of addition to the mechanical department, which I urged in my last report. Tools and machinery are absolutely essential to this important part of the Institution training. Every day accentuates the value of manual education for the deaf, while the blind ought to have an opportunity to learn some industry which calls for least use of sight, and most exercise of intelligence. If the testimony of nearly all educators of the blind counts for anything, piano-tuning satisfies these conditions better than anything else. The printing office needs larger and better equipment. The wood-working shop should have several additional pieces of machinery, and many more bench tools. I therefore earnestly hope that the Legislature will see the wisdom of fostering this essential part of our work and make an appropriation of not less than \$2,000 therefor.

I desire again to call attention to the disreputable and unsightly condition of the approaches to the Institution grounds. Dwight Way, on the north, has been graded and macadamized for a distance of 250 feet, and a bill will be presented by the contractor to the Legislature for the State's proportion of the expense; but the frontage on Warring Street is in the same condition it was twenty-seven years ago, when school was opened on our present site. While the buildings were in process of construction, and large appropriations were necessary to perfect the housing of our pupils, I did not feel like urging the matter of improving our streets, but the time has come when the dignity of the State calls for some expenditure of money in this direction. During the rainy season it is exceedingly difficult to haul supplies for the use of the Institution, and it is no uncommon thing to see wagons mired at the gate. The beauty of the outlook from the Institution grounds attracts many visitors, but they can neither get in nor out of the gate without an unfavorable impression of a commonwealth that will allow the chief approaches to an important and valuable property to remain in such an unkempt condition. I therefore earnestly urge an appropriation of \$5,000 for improving the streets bordering the grounds of the Institution.

Two years ago I asked for an appropriation of \$5,000 for a suitable stone inclosure to take the place of the unsightly decaying wooden fence which now surrounds the grounds. The Legislature omitted this

item from a bill which afterward failed to receive the approval of the Governor, for reasons which seemed good to him. I hope that better fortune may attend the present application. The Directors have authorized me to build a sample piece of wall, to be paid for out of the contingent fund, and thus to be prepared to tell exactly what such an inclosure will cost. The wall will extend about 325 feet on Dwight Way, from the corner of Warring Street to the side entrance. It will be ready for inspection before the Legislature meets, and I shall be able to give very definite figures as to the cost per lineal foot. Judging from the work so far done, the expense will be about \$2 per foot, not including the coping. I respectfully renew my application for an appropriation to be expended in continuing this wall.

That part of the basement of Strauss Hall, under the large sitting-room, is now a dark cellar, of no use except for storing coal. It is 30 feet by 40 feet in dimensions, and could be made of great value by the expenditure of \$1,000, and at the same time be made to correspond in appearance with the other buildings. With light introduced by cutting in windows, and a trifling excavation under the piazza, a dry, warm, and sunny apartment could be made that would furnish several music-rooms, and leave a nice play-room for the small boys, who in winter are much exposed to the inclement weather. I respectfully urge this matter upon your attention.

The exterior painting of the buildings can no longer be deferred unless the Legislature is willing to see valuable State property suffer permanent injury, as well as deteriorate in appearance. It is seven years since any painting has been done on the Educational Building or Durham Hall. The galvanized iron and wood work are both showing the effect of neglect. Not less than \$3,000 should be expended at once, but in view of the hard times, I think that \$2,000 can be made to suffice for the most urgent needs, and I respectfully ask for such an appropriation.

The roof of the shop building needs a thorough overhauling. Part of the roof has had nothing done to it for twenty-five years, and the remainder has been in use for twenty-one years. The valleys, gutters, and down-pipes are rotted, and the shingles have curled and split under the beating of sunshine and storm, till the leakage has become a serious inconvenience. The lowest estimate of renovation calls for an expenditure of \$500, and I respectfully urge an appropriation of this sum.

After the fire in 1875 the shop building, where we were housed for several years, was furnished with wooden bedsteads. These have done service for over twenty-one years, and while all breakage and additions have been made good with iron bedsteads and wire mattresses, there remain about one hundred of the ancient pattern, for which iron bedsteads should be substituted. To do this will cost about \$600, and I

respectfully request that an appropriation of this amount be asked for to carry out such renovation.

The total special appropriations may be tabulated as follows:

Hospital building	\$5,000 00
School apparatus.....	1,500 00
Improvement of mechanical department.....	2,000 00
Improvement of streets	5,000 00
Building of stone wall	3,000 00
Reconstruction of basement	1,000 00
Painting exterior of buildings	2,000 00
Repairing shop roof	500 00
Iron bedsteads	600 00
Total	<u>\$20,600 00</u>

The appropriation and judicious expenditure of this money will add vastly to the appearance, comfort, convenience, and efficiency of the Institution.

It is gratifying to report that Grenville S. Redmond, the deaf-mute artist who is now in Paris by means of a loan from the Durham fund, is making most commendable progress in his art, and bids fair to be a credit to his friends and to the Institution which has enabled him to pursue his studies under such masters as Lefebvre, Constant, Laurens, and Bonnat. His first picture, "A Winter Morning on the Seine," was admitted to the Salon of 1895, and was selected by the editors of the Official Catalogue for illustration. Mr. Redmond has since presented this painting to the Institution, where it now adorns the walls of the office. It is pleasant to note this mark of young Redmond's grateful appreciation of what the Directors have done for him. By the sale of his pictures and the assistance of friends, Mr. Redmond will stay another year in Paris, making four years of great opportunity for equipment in his work.

Our grateful acknowledgments are due to the Southern Pacific Company for granting passes and half-fare tickets to those pupils whose parents or guardians have been unable to pay for transportation at the close of school. This acknowledgment carries with it something more than the perfunctory "thanks" for an isolated act of courtesy and kindness. For twenty-seven years the generosity of this company has been constant and unfailing. At times it has been unparalleled. When fire destroyed the building in 1875, and it became necessary to remove our pupils to their homes at once, the General Manager, Mr. A. N. Towne—now with God—gave orders to conductors of trains to honor my passes without the delay of sending to his office for signature. When I hear the oft-quoted remark that "corporations have no soul," I am glad to testify that there is one corporation within my personal knowledge that has a heart, if it has no soul.

And now I close the record of two years. It has been a period of

peace and prosperity. God has been very good to us. Death has not entered these walls; health has been vouchsafed to the pupils, whose number has never been so large, whose work has never been better. It might be thought a good time to review the thirty-one years since I took charge of the Institution, but the review might be considered personal to a certain extent, so that I shrink from the task. But I am sure it will not be considered out of place to acknowledge and bear witness to the generous confidence and cordial coöperation on the part of the people of California and their representatives, and to you, the Directors of the Institution, who have had its immediate welfare in charge. To this coöperation is largely due whatever success has attended my work. Nobody knows so well as I the unselfish devotion to the best interests of the Institution which has marked your administration of the trust committed to your care.

Respectfully submitted.

WARRING WILKINSON,
Principal.

BERKELEY, CAL., November 4, 1896.

PRINCIPALS' DISSECTIONS OF EXPENDITURES

For Twenty-four Months ending June 30, 1896.

SALARIES AND WAGES.

Principal and teachers	\$37,122 13
Physician, clerk, and matrons	10,305 00
Help	14,712 88
Treasurer	2,000 00
Total	\$64,140 01

CLOTHING.

Buttons	\$21 18	Rubber shoes	\$0 40
Clothes-brushes	4 50	Scissors, 6 prs.	3 90
Collars, 5 doz.	5 00	Shirts, 11½ doz.	64 71
Combs, 7 doz.	7 95	Shirt-waists, 4 doz.	15 25
Dress goods	78 96	Shoe laces	11 45
Dressmaking	6 00	Silesia	7 45
Elastic	11 59	Suspenders, 6 doz.	12 25
Gossamers, 4	5 50	Shoes, 217 prs.	343 17
Hair-brushes, 48	11 00	Shoe-blackening, 31 doz.	14 78
Handkerchiefs, 9 doz.	5 10	Shoe-brushes, 3 doz.	9 65
Hats, 38½ doz.	44 98	Suits clothes, 68	325 33
Hose	36 60	Thread	49 45
Indelible ink	14 15	Trimmings	65
Nail and tooth brushes, 10 doz.	14 05	Tape	1 70
Neckties	3 13	Thimbles	5 35
Overalls, 120 prs.	43 75	Underwear	91 75
Pants, 8 prs.	20 25	Valises	5 25
Pins and needles	20 49		
Repairing shoes	580 50	Total	\$1,899 37
Repairing clippers	2 20		

GROCERIES AND PROVISIONS.

Ammonia, 27 lbs.	\$5 70	Mincemeat, 150 lbs.	\$15 25
Bacon, 477 lbs.	63 16	Molasses, 187 gals.	87 10
Baking powder, 186 lbs.	66 40	Mustard, 71 lbs.	10 60
Bath brick, 48.	3 50	Nutmegs.	1 25
Beans, 3,215 lbs.	83 19	Oatmeal, 1,825 lbs.	60 87
Bread, etc.	7 75	Oats, rolled, 1,625 lbs.	52 77
Butter, fresh, 8,594 lbs.	1,570 76	Olive oil, 17½ doz.	68 30
Butter, pickled, 1,694 lbs.	304 19	Pearl barley	1 58
Callustro	5 00	Peas, split, 655 lbs.	25 49
Canned goods, 156½ doz.	284 42	Pepper, whole, 130 lbs.	11 78
Capers, 9 bottles	2 55	Pickles, bottles.	33 05
Carb. soda, 72 lbs.	4 08	Pickles, keg, 105 gals.	18 65
Cheese, 550 lbs.	61 48	Potatoes, 59,653 lbs.	544 52
Chicory, 894 lbs.	46 60	Poultry	179 82
Chocolate	7 02	Raisins, 135 lbs.	8 05
Citron	2 30	Rice, 3,388 lbs.	157 56
Cocoa, 10 lbs.	2 25	Sago, 25 lbs.	1 28
Coffee, 1,930 lbs.	484 15	Saleratus, 60 lbs.	3 54
Cooking wine.	23 50	Sal soda, 4,133 lbs.	39 30
Cornmeal, 1,545 lbs.	35 90	Salt, coarse, 3,610 lbs.	15 51
Cornstarch, 230 lbs.	17 95	Salt, table, 5,200 lbs.	31 95
Crackers, Santa Clara, 177 lbs.	12 66	Salt, refined	3 80
Crackers, soda, 2,171 lbs.	125 34	Saltpetre, 80 lbs.	8 85
Crackers, mixed	34 35	Sapolio, 72	58 02
Currants, 190 lbs.	9 62	Sauce, 2 doz.	5 60
Curry, 9 bottles	1 05	Silicon, 9½ doz.	8 60
Eggs, 1,836½ doz.	383 24	Soap, brown, 3,000 lbs.	135 00
Extracts	21 65	Soap, ivory, 875 lbs.	107 94
Farina, etc.	8 44	Soap, toilet	15 38
Fish, fresh	332 44	Soap, Bon Ami, 6 doz.	5 10
Fish, salt	64 80	Soda	6 25
Flour, graham	23 50	Spices	6 27
Flour, rye, 60 lbs.	4 05	Sugar, brown, 516 lbs.	21 77
Flour, white, 399 bbls.	1,299 46	Sugar, cube, 732 lbs.	37 93
Fruit, dried	144 56	Sugar, granulated, 32,601 lbs.	1,665 74
Fruit, fresh	472 15	Sugar, powdered, 274 lbs.	17 55
Gelatine, 3 doz.	5 25	Syrup, 193 gals.	24 20
Ginger, 30 lbs.	8 70	Tapioca, 40 lbs.	2 57
Ham, 900½ lbs.	115 02	Tea, 552 lbs.	157 15
Honey	1 35	Thyme, sage, etc.	3 00
Hops	3 70	Vegetables	47 55
Ice-cream	5 25	Vinegar, 247 gals.	28 73
Lard, 2,372 lbs.	198 84	Yeast	3 65
Macaroni, etc., 598 lbs.	33 12	Washing ammonia, 27 doz.	43 65
Mace, 22½ lbs.	13 58	Wheat, rolled, etc., 575 lbs.	15 45
Malt	50		
Meat, 64,486 lbs.	3,584 52	Total	\$13,786 96

FURNITURE.

Baskets, 14	\$6 35	Oilcloth	\$9 50
Bedsteads	149 10	Pails and coal-buckets	29 75
Blankets, 52 prs.	188 40	Paper bags	3 40
Brooms, 14 doz.	49 00	Papering	24 00
Carpets and lining	279 81	Preserve jars	70 60
Carpet-cleaning	55 67	Quilts, 54	59 00
Chairs	64 00	Rattan furniture	118 00
Clock repairing	3 25	Repairing furniture	15 45
Cutlery	105 15	Rubber blankets	26 25
Curtains	57 90	Scrub brushes	9 25
Crockery, etc.	390 11	Sewing-machine repairs	2 30
Desks, 18	55 70	Sponges	4 25
Dust and floor brushes, 6½ doz.	115 90	Sheeting, 1,090¼ yds.	148 30
Dustpans, 3 doz.	4 40	String, etc.	7 75
Feathers, 125 lbs.	75 00	Table-legs	4 00
Feather dusters, 4½ doz.	54 46	Table-cloths	79 90
Hair, 450 lbs.	202 50	Ticking, 238¼ yds.	39 08
Kitchen utensils	27 75	Tinware and repairs	60 97
Linoleum	83 39	Towels	87 16
Mats and matting	65 00	Upholstering	14 35
Mirrors	46 80	Window shades	24 90
Mattresses and repairs	182 10	Wooden-ware	9 35
Mops, 19 doz.	41 32	Window belt	2 00
Mop and brush handles	4 50		
Napkins	120 35	Total	\$3,288 92
Napkin rings, 144	11 50		

BUILDING AND REPAIRS.

Brick, 5 M.	\$54 50	Paints, oils, etc.	\$265 53
Cement, 97 bbls.	236 80	Pipe-covering	6 84
Engine repairs	4 25	Plastering	31 50
Glass and putty	175 17	Plumbing and supplies	484 97
Granite step	24 00	Repairing roads and gutters	356 00
Gravel	516 05	Repairing oven and furnaces	287 85
Hardware	392 13	Repairing roofs	104 40
Heating apparatus and repairs	483 12	Sand, 8 loads	15 00
Labor on cement walk	243 75	Sewer-pipe	63 49
Iron girder	37 93	Tunnel repairs	100 00
Lime, 27 bbls.	29 50		
Lumber	1,327 11	Total	\$5,393 16
Painting	153 27		

FUEL AND LIGHT.

Candles, 100 lbs.	\$11 95	Gasoline, 51 gals.	\$10 20
Charcoal, 2 sks.	1 50	Lamps, etc.	3 50
Coal, 261,443 tons	2,305 79	Machine oil, 92 gals.	64 40
Coal screenings, 314,440 tons	1,822 63	Matches	7 40
Coal oil, 562 gals.	78 96	Repairing gas fixtures	59 87
Electric-plant repairs	55 93	Wages, engineers	3,500 00
Electric lamps, 200	46 00	Wicks and tapers	1 00
Gas, 225,900 feet	489 69	Wood, 26 cords	199 88
Gas and lamp chimneys	1 25		
Gas regulator, rent of.	48 00	Total	\$8,707 95

LAUNDRY.

Acid	\$0 25	Sal soda, 1,653 lbs.	\$14 48
Baskets	29 20	Soap, borax, 320 lbs.	16 05
Blueing, 57 lbs.	7 63	Soap-grease, 49 lbs.	2 70
Brushes, 2 doz.	2 20	Starch, 935 lbs.	64 13
Caustic soda, 1,060 lbs.	87 90	Wax, 80 lbs.	10 90
Chloride of lime, 629 lbs.	25 45	Wages	2,160 00
Clothes-pins	1 50	Washing machine	590 00
Irons	7 50		
Pans for furnace	9 00	Total	\$3,070 18
Repairing machinery	41 29		

STABLE AND DAIRY.

Barley, 2,813 lbs.	\$23 27	Oil-cake meal, 8,304 lbs.	\$115 55
Bran, 61,430 lbs.	427 76	Pail and cans	16 10
Broom	5 90	Plowing	16 00
Chamois skins	8 70	Repairing buggies and wagons	72 75
Currycomb and brush	1 16	Sponges	94
Farm implements and repairs	95 55	Straw, 69 bales	30 50
Harness and repairs	131 25	Veterinary expenses	22 00
Hay, 329,025 lbs.	1,727 30	Wages	1,560 00
Horse-clipping and shoeing	104 50	Wheat, cracked, 50 lbs.	1 25
Horses, 2	180 00	Wheat, whole, 2,430 lbs.	26 93
Hens and eggs	8 50	Wire-netting	15 38
Middlings, 13,948 lbs.	137 91		
Oats, 3,828 lbs.	42 78	Total	\$4,771 98

INDUSTRIAL DEPARTMENT.

<i>Carpenter Shop—</i>		Ink	\$4 00
Hardwood	\$185 16	Paper	228 69
Tools	232 30	Repairing machinery	7 25
Wages	1,800 00	Type	296 49
<i>Printing Office—</i>		Wages	1,662 50
Benzine	1 00		
Engraving tools	24 00	Total	\$4,441 39

MISCELLANEOUS.

Advertising.....	\$6 75	Mail pouches	\$7 00
Athletics	3 75	Music for the blind	29 42
Attorney fees.....	50 00	Pictures and photographs	139 48
Auditing Treasurer's accounts.....	75 00	Phonograph repairs	18 90
Blacksmithing.....	14 50	Piano and organ tuning and re-	
Books, etc.....	566 07	pairing	438 78
Bookbinding	22 55	Powder, fuse, etc.	1 80
Cartage	8 00	Seeds and plants	54 53
Christmas expenses	124 39	Scales	165 00
Collection charges	87 35	Spectacles	8 00
Diplomas	27 50	Squirrel poison	2 17
Copy assignment	12 75	Stamps	121 41
Directory	5 00	Subscription to "Annals of the	
Drugs	212 82	Deaf"	64 65
Electric repairs	1 80	Subscription to "Magazines for	
Engrossing	2 00	the Blind"	11 29
Erecting statue	70 00	Telegrams	14 05
Expenses, clerk	1 75	Telephones	405 68
Expenses of pupils	426 05	Traveling expenses	404 30
Express charges	218 85	Typewriters and repairs	140 15
Fire extinguishers	132 00	Tablets for halls	125 00
Flag	6 50	Tunnel repairs	80 00
Flower-pots	27 35	Water, 1,055,525 gallons	316 60
Freight	211 85	Water, sprinkling	21 50
Garden tools	94 14	Wrapping paper, etc.	78 80
Hose, 475 feet	61 00		
Ice	36 25	Total	\$5,157 73
Lye	3 25		

RECAPITULATION.

Salaries and wages	\$64,140 01
Groceries and provisions	13,786 96
Clothing	1,899 37
Furniture	3,288 92
Building and repairs	5,393 16
Fuel and light	8,707 95
Laundry	3,070 18
Stable and dairy	4,771 98
Industrial department	4,441 39
Miscellaneous	5,157 73
Total expenditures	\$114,657 65

STATEMENT OF THE TREASURER FOR THE TWENTY-FOUR MONTHS ENDING JUNE 30, 1896.

RECEIPTS.

July 1, 1894—To cash on hand	\$3,853 42
To support from State Treasurer	110,208 93
To miscellaneous receipts and interest	5,210 56
Total	<u>\$119,272 91</u>

DISBURSEMENTS.

June 30, 1896—By support, as per vouchers	\$110,208 93
By support (Directors' General Fund)	4,448 72
By balance, cash on hand	4,615 26
	<u>119,272 91</u>

DURHAM FUND.

Receipts.

June 30, 1894—To cash on hand	\$14,811 89
To interest and dividends	4,534 77
Total	<u>\$19,346 66</u>

Disbursements.

June 30, 1896—By disbursements, as per vouchers	\$3,339 76
Balance, cash on hand	16,006 90
	<u>19,346 66</u>

LOUIS STRAUSS FUND.

Receipts.

June 30, 1894—To cash on hand	\$1,779 77
To interest and dividends	852 67
Total	<u>\$2,632 44</u>

Disbursements.

June 30, 1896—By disbursements, as per vouchers	\$158 00
By balance, cash on hand	2,474 44
	<u>2,632 44</u>

LIBRARY FUND.

Receipts.

June 30, 1894—To cash on hand	\$1,228 56
To dividends	107 31
Total	<u>\$1,335 87</u>

Disbursements.

June 30, 1896—By disbursements, as per vouchers	\$106 29
By balance, cash on hand	1,229 58
	<u>1,335 87</u>

SPECIAL APPROPRIATION FOR SEWER.

June 30, 1896--To State Treasurer		\$315 04
By voucher (disbursement)	\$315 04	
		315 04

STATEMENT OF CASH BALANCES JULY 1, 1896.

On deposit in Farmers and Merchants Savings Bank to credit of the General Fund	\$4,615 28
On deposit in Farmers and Merchants Savings Bank to credit of the Durham Fund	16,006 90
On deposit in Union Savings Bank to credit of the Louis Strauss Fund	2,474 44
On deposit in Union Savings Bank to credit of the Library Fund	1,229 58
Total cash on hand end of forty-seventh fiscal year	\$24,326 20

ASSETS.

To cash on hand	\$24,326 20
To bills receivable	40,202 03
	\$64,528 23
A. Schroeder, notes	\$17,500 00
J. Staude, note	16,000 00
Douglas Tilden, notes	2,221 80
Newel Perry, note	1,995 00
G. S. Redmond, notes	1,665 23
Theo. Grady, note	570 00
Geo. Howson, note	250 00
Cash on hand	24,326 20
	\$64,528 23

Respectfully submitted.

W. L. PRATHER,
Treasurer.

Subscribed and sworn to before me, this 10th day of September, 1896.

[SEAL.]

G. A. WILLARD,
Notary Public in and for Alameda County, State of California.

LIST OF PUPILS IN THE INSTITUTION

FOR THE TWO YEARS ENDING JUNE 30, 1896.

Name.	Town.	County.
<i>Deaf Boys.</i>		
Akers, Lester	San Bernardino	San Bernardino.
Anderson, Adolph	Oakland	Alameda.
Baker, J. W.	Yuba City	Sutter.
Baldwin, Edward	Truckee	Nevada.
Bean, David M.	San Francisco	San Francisco.
Bemis, Samuel R.	Sacramento	Sacramento.
Bernstein, Benjamin	San Francisco	San Francisco.
Blanco, Robert	Gonzales	Monterey.
Bodwell, Raymond H.	Alameda	Alameda.
Bradley, George	Rutherford	Napa.
Buker, Raymond	Oakland	Alameda.
Cordano, Lewis	Windsor	Sonoma.
Carpenter, Ernest	Fallbrook	San Diego.
Carroll, Philip	San Francisco	San Francisco.
Cavalli, Julius	St. Helena	Napa.
Christiansen, George A.	West Berkeley	Alameda.
Clark, Albert G.	Santa Cruz	Santa Cruz.
Coder, Sherman A.	Arabella	Lake.
Cole, Jay	Chico	Butte.
Cotter, William	Haywards	Alameda.
Craze, William	Gold Hill	Nevada.
Curran, William	Gold Hill	Nevada.
Cohn, Benjamin D.	San Francisco	San Francisco.
De Clercq, Arthur	Simi	Ventura.
De Clercq, Rene	Simi	Ventura.
Davis, George	Alameda	Alameda.
D'Cambri, Manuel	Oakland	Alameda.
Demartini, Andrew	Brentwood	Contra Costa.
Depew, Roscoe D.	Cucamonga	San Bernardino.
Doane, Clarence	Rialto	San Bernardino.
Donoho, Augustus	Dixon	Solano.
Draeger, William	Pacheco	Contra Costa.
Du Bois, Charles	Los Angeles	Los Angeles.
Dutra, José	Mission San José	Alameda.
Evans, Stuart	Selma	Fresno.
Fletcher, Clayton	San Francisco	San Francisco.
Frank, Henry	San Francisco	San Francisco.
Fritz, George H.	Los Angeles	Los Angeles.
Gabrielli, Giuseppe	Sacramento	Sacramento.
Gianbruno, Giuseppe	San Francisco	San Francisco.
Gleason, Thomas	San Francisco	San Francisco.
Green, Ray	Temescal	Alameda.
Griggs, Vester A.	Alexander	Sonoma.
Grose, William	Nevada City	Nevada.
Guinessi, Vittorio	San Francisco	San Francisco.
Haley, James E.	San Luis Obispo	San Luis Obispo.
Hall, Raymond B.	Oakland	Alameda.
Hannan, Walter	San Francisco	San Francisco.
Hart, William Irwin	Princeton	Colusa.
Hartmann, Adolph C.	Hollister	San Benito.
Hartman, Edwin	San Francisco	San Francisco.
Hinman, Gage J.	Sheridan	Placer.
Hoffmann, Edward	St. Helena	Napa.
Holcomb, Hugo	Berkeley	Alameda.
Hunt, Thomas	Scotia	Humboldt.
Isert, Gustav	Antioch	Contra Costa.
Isert, Herman H.	Antioch	Contra Costa.
Jackson, Louis B.	Fruitvale	Alameda.
Jacobs, Isador H.	Oakland	Alameda.

LIST OF PUPILS—Continued.

Name.	Town.	County.
<i>Deaf Boys—Cont.</i>		
Jacobs, Manroe	Plainsburg	Merced.
Johnson, Martin F.	San Francisco	San Francisco.
Johnston, William	Traver	Tulare.
Keesing, Barnett	San Francisco	San Francisco.
Kerr, Joseph V.	Redwood City	San Mateo.
Kinevan, Patrick	Santa Barbara	Santa Barbara.
King, Chauncey	Santa Barbara	Santa Barbara.
Knuckey, John	Grass Valley	Nevada.
Kramback, Herman	San Francisco	San Francisco.
Laughlin, Joseph	Los Angeles	Los Angeles.
Lawton, William C.	San Francisco	San Francisco.
Lester, Walter M.	Berkeley	Alameda.
Lewis, James	Capay	Yolo.
Liddle, Bertrand L.	Bryson	Monterey.
Lipsett, Isaac R.	San José	Santa Clara.
Lociceto, John	San Francisco	San Francisco.
Love, Dugald M.	Antioch	Contra Costa.
MacPeake, Thomas	San Pablo	Contra Costa.
Matheis, Melville J.	Los Angeles	Los Angeles.
Mier, Rafael L.	San Francisco	San Francisco.
Moore, John V.	Anderson	Shasta.
Morris, Manuel	Bolinas	Marin.
Morse, Elmer R.	Oakland	Alameda.
Moynahan, John	Vallejo	Solano.
Munch, Anthony B.	San Francisco	San Francisco.
Murphy, Joseph	San Francisco	San Francisco.
Newman, William	Fresno	Fresno.
Niel, Henry H.	Pope Valley	Napa.
Norton, Ernest E.	San Francisco	San Francisco.
Norton, Mayhew	Oakland	Alameda.
Page, Claude	Hot Creek	Nevada.
Page, Marl A.	Hot Creek	Nevada.
Phelps, William C.	Stony Ford	Colusa.
Presley, Hiram	Lompoc	Santa Barbara.
Rafetto, Louis	San Francisco	San Francisco.
Robles, Daniel	Santa Barbara	Santa Barbara.
Runde, Winfield S.	Berkeley	Alameda.
Russell, Charles L.	Artesia	Los Angeles.
Saunders, James L.	Fresno	Fresno.
Scott, Elfred	Santa Rosa	Sonoma.
Sherman, Abraham L.	Oakland	Alameda.
Sherman, Daniel	Oakland	Alameda.
Sherman, William T.	Oakland	Alameda.
Sievers, Henry	Stockton	San Joaquin.
Small, Ward	Los Angeles	Los Angeles.
Smith, Laban P.	Gonzales	Monterey.
Songey, Ernest	West Berkeley	Alameda.
Souther, Van C.	San Francisco	San Francisco.
Stafford, Monterville	Visalia	Tulare.
Stewart, Alva	Petaluma	Sonoma.
Stiles, Fred A.	Santa Clara	Santa Clara.
Sweetman, John	San Francisco	San Francisco.
Taber, Hal.	Napa	Napa.
Tillman, Leslie	Florence	Arizona.
Tickner, Gerald R.	Fort Jones	Siskiyou.
Veary, Edward	Oakland	Alameda.
Valdez, José	Los Angeles	Los Angeles.
Wharton, Valley	West Berkeley	Alameda.
Wolf, Aby	Angel's Camp	Calaveras.
Wood, Golder C.	Anderson	Shasta.
<i>Deaf Girls.</i>		
Adair, Mary J.	Los Angeles	Los Angeles.
Alexander, Florence	Oakland	Alameda.
Ashworth, Jessie	Mariposa	Mariposa.
Baccus, Celine	Oakland	Alameda.
Bradley, Lizzie	Tiburon	Marin.
Brimmer, Leonora	Santa Cruz	Santa Cruz.
Bullock, Bertha	Fresno	Fresno.
Cafnisa, Louisa	San Francisco	San Francisco.

LIST OF PUPILS—Continued.

Name.	Town.	County.
<i>Deaf Girls—Cont.</i>		
Campbell, Marie	Berkeley	Alameda.
Carr, Constance E.	Rodeo	Contra Costa.
Casey, Cora	Pilot Hill	El Dorado.
Chandler, Maggie	Tulare	Tulare.
Cole, Elizabeth D.	Oakland	Alameda.
Cox, Ollie	Fall River Mills	Shasta.
Craddock, Rose	Shasta	Shasta.
Crawford, Carrie	Berkeley	Alameda.
Di Vecchio, Ida	San José	Santa Clara.
Downes, Mary	San Francisco	San Francisco.
Finch, Ethel E.	Monterey	Monterey.
Galloup, Margarita	San Francisco	San Francisco.
Gande, Ida	San Francisco	San Francisco.
Gande, Mabel A.	San Francisco	San Francisco.
Gavin, Ethel Gertrude	San Francisco	San Francisco.
Genung, Margaret	Sacramento	Sacramento.
Golden, Algje May	Modesto	Merced.
Gould, Louise F.	Stege	Contra Costa.
Gould, Maud H.	Stege	Contra Costa.
Guenther, Alice	Los Angeles	Los Angeles.
Haagensen, Agnes	Oakland	Alameda.
Hatch, Adeline	Cottonwood	Shasta.
Hatch, Josephine	Cottonwood	Shasta.
Hennessey, Isabella	San Francisco	San Francisco.
Hinman, Bessie M.	Sheridan	Placer.
Hinman, Mabel A.	Sheridan	Placer.
Holcomb, Lydia Anne	Berkeley	Alameda.
Holcomb, Mabel	Berkeley	Alameda.
Hopkins, Amy Ruth	Potter Valley	Mendocino.
Hopper, Lennie	Calistoga	Napa.
Ikin, May F.	Alameda	Alameda.
Jackson, Estella	Fruitvale	Alameda.
Johnson, Myrtle B.	Black Diamond	Contra Costa.
Jones, Henrietta	Murphys	Calaveras.
Jones, Susie A.	Santa Rosa	Sonoma.
Keesing, Grace	San Francisco	San Francisco.
Keesing, Lizzie T. B.	San Francisco	San Francisco.
Kern, Lillie	San Francisco	San Francisco.
Lamey, Lydia	San Francisco	San Francisco.
Lindstrom, Annie M.	Oakland	Alameda.
Lucy, Mary	Undine	San Joaquin.
Luddy, Mabel	San Andreas	Calaveras.
Lynch, Irene	San Francisco	San Francisco.
Matauda, Mary	San Francisco	San Francisco.
McDonald, Isabella	Fresno	Fresno.
McGrath, Mary	San Francisco	San Francisco.
McGruder, Lizzie	San Francisco	San Francisco.
McLean, Maggie	Fresno	Fresno.
Matchette, Mary	Oak Park	Sacramento.
Miller, Clara S.	Lodi	San Joaquin.
Mucha, Rose	San Francisco	San Francisco.
Moldenhauer, Emma	San Francisco	San Francisco.
Norton, Frances A.	Oakland	Alameda.
Parks, Lulu	Hollister	San Benito.
Peralta, Corinna	Temescal	Alameda.
Petersen, Rassmine	West Berkeley	Alameda.
Phelps, Fanny	Pasadena	Los Angeles.
Phelps, Minnie A.	Stony Ford	Colusa.
Reese, May	La Porte	Plumas.
Regli, Josephine	San Francisco	San Francisco.
Reichert, Mabel	Sacramento	Sacramento.
Robles, Francesca	Mountain View	Santa Clara.
Robles, Louisa	Montecito	Santa Barbara.
Roncalli, Angelina	Occidental	Sonoma.
Roncalli, Lizzie	Occidental	Sonoma.
Rowe, Tilly	Auburn	Placer.
Shepley, Helena G.	San Francisco	San Francisco.
Sink, Genevieve	Cloverdale	Sonoma.
Skaine, Alice	San Francisco	San Francisco.
Slocum, Elsie	Milo	Tulare.

LIST OF PUPILS—Continued.

Name.	Town.	County.
<i>Deaf Girls—Cont.</i>		
Stacks, Nancy F.	Elliott	San Joaquin.
Summers, Jessie	Waterford	Stanislaus.
Thompson, Lois M.	Alosta	Los Angeles.
Walter, Annie	San Francisco	San Francisco.
Wilson, May E.	West Berkeley	Alameda.
Wilson, Pearl	Fort Jones	Siskiyou.
<i>Blind Boys.</i>		
Bacigalupi, Lucien	Oakland	Alameda.
Barkhausen, August	San Francisco	San Francisco.
Bowman, Fred	San Francisco	San Francisco.
Brooks, William	Oakland	Alameda.
Buckingham, Thomas H.	Vacaville	Solano.
Caceres, Charles	San Francisco	San Francisco.
Calderon, Lorenzo	Santa Barbara	Santa Barbara.
Clark, Martin D.	Stockton	San Joaquin.
Crossfield, William	San Francisco	San Francisco.
Davis, George E.	Berkeley	Alameda.
Dundero, John	San Rafael	Marin.
Fisher, John W.	San Francisco	San Francisco.
Ford, John	San Francisco	San Francisco.
Freese, Alfred	Alameda	Alameda.
Gay, Eben	Gilroy	Santa Clara.
Halstead, George	Hot Creek	Nevada.
Henderson, Raymond	Horr's Ranch	Stanislaus.
Henderson, Stanley	Horr's Ranch	Stanislaus.
Hughes, James	San Francisco	San Francisco.
Juckett, Clarence E.	Redding	Shasta.
Kirkpatrick, Gerald	San Francisco	San Francisco.
McDonald, Alexander	Oakland	Alameda.
Miller, Polk W.	Ukiah	Mendocino.
Morrison, Thomas H.	San Francisco	San Francisco.
Nicholson, Thomas	San Francisco	San Francisco.
Paxton, John A.	San Francisco	San Francisco.
Pomin, Joseph H.	Truckee	Nevada.
Richville, George	Oakland	Alameda.
Spangenberg, Robert	San Francisco	San Francisco.
Swinney, Fred	Santa Monica	Los Angeles.
Templeton, Ray	Oakland	Alameda.
Uruchurtu, Rosendo	Los Angeles	Los Angeles.
<i>Blind Girls.</i>		
Alison, Tilly	Lincoln	Placer.
Barbee, Laura	San Francisco	San Francisco.
Carpenter, Bertha	Fallbrook	San Diego.
Clark, Pearl	Lorin	Alameda.
Clifford, Maggie	Oakland	Alameda.
Davis, Susie J.	Virginia	Nevada.
Erickson, Lena	Stockton	San Joaquin.
Fallon, Kate	West Berkeley	Alameda.
Foley, Kate	Los Angeles	Los Angeles.
Falck, Rosa	San Francisco	San Francisco.
Hanchett, Grace	San José	Santa Clara.
Hill, Rhoda S.	Chatsworth	Los Angeles.
Holterhoff, Leila	Los Angeles	Los Angeles.
Johnson, Hilma	Paso Robles	San Luis Obispo.
Labarraque, Christine	Hollister	San Benito.
Lafee, Rosa	San Francisco	San Francisco.
Mesow, Helen	North Temescal	Alameda.
Oxton, Amelia	San Francisco	San Francisco.
Prime, Edna P.	Maxwell	Colusa.
Rugg, Ethel	Cottonwood	Shasta.
Ruiz, Marie A.	Los Angeles	Los Angeles.
Seeley, Catherine	Saticoy	Ventura.
Smith, Johanna	San Francisco	San Francisco.
Sperow, Grace	Pasadena	Los Angeles.
Stolberg, Katie	Los Angeles	Los Angeles.
Silva, Maggie	San Francisco	San Francisco.
Whaley, Lizzie	San Francisco	San Francisco.
Winters, Susie	Stockton	San Joaquin.
Young, Hattie	San Francisco	San Francisco.

TERMS OF ADMISSION.

The California State Institution for the Deaf and Dumb, and the Blind, is located at Berkeley, about four miles north of the City of Oakland. Between San Francisco and Berkeley a steam ferry plies almost every half hour in the day, and from Oakland a railroad is constructed, which lands passengers within easy walking distance of the Institution.

First—The Institution offers its benefits to all deaf and dumb or blind persons who are of age suitable for instruction, and who are of sound intellect, and free from vicious habits and contagious or offensive diseases.

Second—No charge is made for pupils from this State, except for clothing and traveling expenses.

Third—Pupils from other States or Territories are charged \$300 per annum, payable quarterly in advance. No deduction is made from annual charge on any account, except in case of prolonged sickness.

Fourth—The session begins on the last Wednesday of August, and closes the second Wednesday of June. Parents are earnestly requested to enter or return their children promptly at the beginning of the term. Only in extreme cases will pupils be permitted to leave before school closes.

Fifth—Pupils should be provided with comfortable clothing when they enter the Institution, and their wardrobe renewed twice a year.

Sixth—All moneys designed for pupils should be placed in the hands of the Principal, to whom, also, all letters of inquiry, etc., should be addressed. Money orders should be drawn on the "Berkeley" Post Office; and all letters, packages, or trunks should be addressed, "Institution for the Deaf and Dumb, and the Blind, Berkeley, Alameda County, California."

Parents or guardians of applicants for admission are requested to furnish written answers to the following questions:

1. What is the name of the applicant?
2. When and where was he born?
3. Is his deafness or blindness from birth, or is it from accident or disease? If so, at what age and from what cause did he become so?
4. Is his deafness or blindness total or partial? If the latter, what is the degree of hearing or sight?

5. Have any attempts been made to remove his deafness or blindness; and if so, what are the results?

6. Are there any other cases of deafness, blindness, insanity, or idiocy in the same family, or among the collateral branches or kindred? If so, how and when produced?

7. Was there any relation between parents or grandparents before marriage?

8. Has the child had the smallpox, scarlet fever, measles, mumps, whooping-cough? Has he been vaccinated?

9. What are the names, nationality, occupation, residence, and post office address of parents?

10. What is the number of their children?

ELEVENTH ANNUAL REPORT

OF THE

BOARD OF DIRECTORS

OF THE

Industrial Home of Mechanical Trades for the Adult Blind

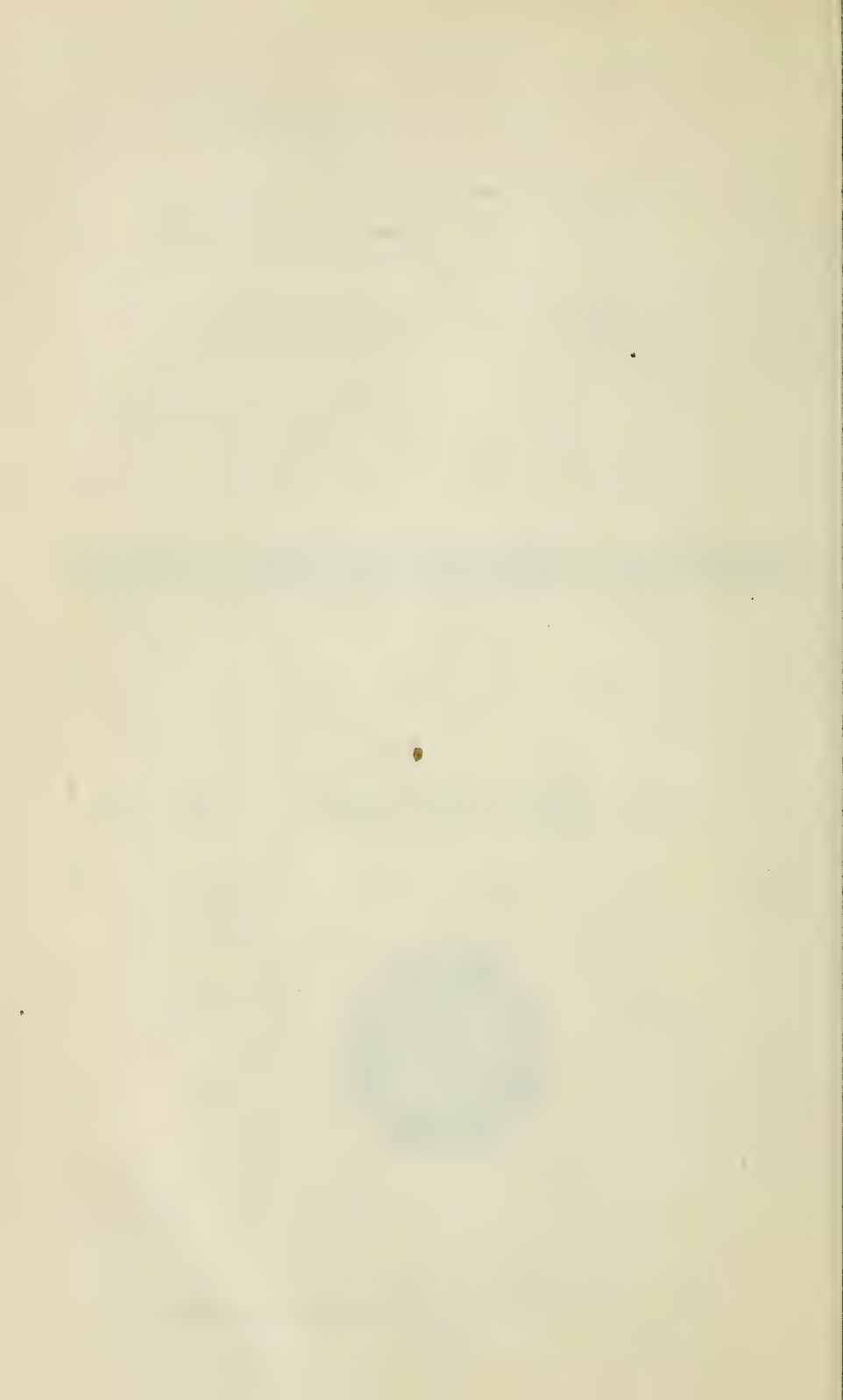
FOR THE

YEAR ENDING DECEMBER 1, 1896.



SACRAMENTO:

A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.
1896.



REPORT.

OAKLAND, CAL., December 22, 1896.

To his Excellency JAMES H. BUDD, Governor of California:

In accordance with Section 7 of Article 3 of the Act establishing the Home, approved March 17, 1887, the Board of Directors of the Industrial Home of Mechanical Trades for the Adult Blind, of the State of California, hereby respectfully submits its annual report.

Following will be found a statement of the expenditures of the Home during the year 1896, and up to December 1st of said year. This statement is segregated, in order to show the exact amounts expended for each purpose during each month of the year.

SCHEDULE OF EXPENDITURES FOR 1896.

Month.	Inmates' Earnings.	Broom Factory.	Machinery and Tools.	Shop Pay-roll.	Furniture.	Buildings and Improvements.
January	\$385 14	\$1,586 13	\$25 91	\$136 00	\$15 85	\$69 09
February	362 84	373 95	-----	136 00	15 60	50 21
March	411 89	313 09	5 50	136 00	8 30	31 52
April	468 55	550 13	-----	136 00	16 95	5 85
May	476 67	1,561 86	4 60	136 00	3 60	4 40
June	378 01	1,041 39	27 90	136 00	110 12	51 75
July	328 47	1,157 60	-----	136 00	34 95	169 53
August	440 38	128 92	1 00	136 00	9 50	196 93
September	701 48	631 20	-----	136 00	20 20	130 53
October	648 84	399 96	-----	136 00	16 50	180 67
November	542 20	789 00	3 75	136 00	-----	584 23
	\$5,144 47	\$8,533 23	\$68 66	\$1,496 00	\$251 57	\$1,474 71

Month.	Groceries and Provisions.	Salaries and Wages.	Medicines.	Washing.	Miscellaneous.	Totals.
January	\$657 36	\$759 20	\$26 60	\$100 00	\$180 15	\$3,941 43
February	594 45	764 15	29 85	100 00	113 95	2,541 00
March	558 05	737 90	33 30	100 00	100 63	2,436 18
April	684 84	742 90	22 75	100 00	80 05	2,808 02
May	545 91	745 40	22 60	100 00	137 49	3,738 53
June	644 35	779 65	27 75	100 00	163 75	3,460 67
July	623 44	820 15	17 75	100 00	63 20	3,451 09
August	679 74	812 40	27 70	100 00	88 97	2,621 54
September	658 44	830 15	26 10	100 00	121 50	3,355 60
October	593 33	626 00	-----	100 00	202 00	2,903 30
November	874 57	689 30	51 55	100 00	355 99	4,126 59
	\$7,114 48	\$8,307 20	\$285 95	\$1,100 00	\$1,607 68	\$35,383 95

Taking the totals of these figures, we arrive at the following result for the year:

Appropriation	\$25,000 00	
<i>Betterments.</i>		
Expended for furniture	\$251 57	
For buildings and improvements	1,474 71	
		\$1,726 28
<i>Maintenance.</i>		
For groceries and provisions	\$7,114 48	
Salaries and wages	8,307 20	
Medicine	285 95	
Washing	1,100 00	
Miscellaneous	1,607 68	
		\$18,415 31
Balance		4,858 41
	\$25,000 00	\$25,000 00
Unexpended balance		\$4,858 41

It must be borne in mind that this balance does not represent the actual amount of money remaining in the fund appropriated by the Legislature, but simply the amount which would be left for the month of December, assuming that the fiscal year began January 1, 1896.

We submit the following statement, taken from the records, which shows the monthly expenditures since the beginning of the fiscal year, July 1, 1895:

Balance of old appropriation	\$2 49	
To appropriations for forty-seventh and forty-eighth fiscal years	50,000 00	
1895—July bills		\$1,038 20
August bills		1,675 28
September bills		1,182 41
October bills		3,544 01
November bills		1,620 18
December bills		2,462 82
1896—January bills		1,786 50
February bills		1,611 06
March bills		1,551 10
April bills		1,654 59
May bills		1,524 94
June bills		1,900 77
July bills		1,817 72
August bills		1,915 24
September bills		1,886 92
October bills		1,854 50
November bills		2,791 64
Balance		18,184 61
	\$50,002 49	\$50,002 49
Unexpended balance	\$18,184 61	

This balance of \$18,184 61 is left for the maintenance of the Home for the seven months from December 1, 1896, to July 1, 1897, the beginning

of the forty-ninth fiscal year; being an average of \$2,597 80 per month for the term.

Returning again to the figures of the schedule, we arrive at the following, as the results of the conducting of the Broom Factory for the year:

Received from sales	\$13,888 18	
Outstanding accounts December 1, 1896	3,313 07	
Material on hand December 1, 1896	2,317 94	
Manufactured goods on hand December 1, 1896	4,560 00	
Material purchased during the year		\$8,533 23
Inmates' wages		5,144 47
Shop pay-roll		1,496 00
Machinery and tools		68 66
Outstanding accounts January 1, 1896		3,131 20
Material on hand January 1, 1896		3,917 85
Manufactured goods on hand January 1, 1896		288 00
Balance		1,499 78
	<u>\$24,079 19</u>	<u>\$24,079 19</u>
Balance in favor of manufacturing plant	\$1,499 78	

These figures show that since January 1, 1896, the Broom Factory has been run at a clear profit to the State of \$1,499 78.

Following is a statement, taken from our records, of the receipts and expenditures for the Broom Factory since January 1st of this year:

Balance on hand January 1, 1896	\$1,741 42	
January collections	1,444 53	
February collections	957 23	
March collections	1,525 61	
April collections	1,303 37	
May collections	1,276 13	
June collections	1,511 14	
July collections	1,121 41	
August collections	908 98	
September collections	956 53	
October collections	1,066 96	
November collections	1,387 09	
January bills		\$2,154 93
February bills		928 69
March bills		885 08
April bills		1,153 43
May bills		2,213 59
June bills		1,559 90
July bills		1,622 07
August bills		706 30
September bills		1,468 68
October bills		1,048 70
November bills		1,334 95
Balance		124 08
	<u>\$15,200 40</u>	<u>\$15,200 40</u>
Balance remaining in fund	\$124 08	

Number of persons supported at the Home	127
Total cost of maintaining same	\$20,141 59
Cost of maintenance per month	1,831 05
Cost of maintenance per inmate per month	14 41

We would respectfully call your attention to the fact that the cost of maintenance per inmate per month, viz.: \$14 41, includes the entire amount of money expended by the State in any way for the maintenance of the Home, in which are included the items for furniture, buildings and improvements, salaries and wages, medicines, washing, and miscellaneous expenses; in fact, every expense which comes out of the \$50,000 appropriation. The actual cost of maintaining each inmate of the Home for one month, not including money expended by the State for betterments, such as furniture, buildings and improvements, etc., is \$13 18.

There are no beneficiaries doing work at their own residences at the present time.

As regards the condition of the Home at the present time, we beg to report that during the year the buildings have all been thoroughly renovated, and considerable work has been done in beautifying and improving the grounds. But the most important improvement which has been made was the putting in of entirely new plumbing. We found that inmates were threatened with sewer-gas poisoning on account of defects in the sewerage, and for that reason we thought necessary to make general repairs to the old sewerage system.

Our accommodations are taxed to the utmost, and, while we have not another available place for an inmate, we have on hand, at present, about forty applications, and would, undoubtedly, have many more were it not a well-known fact that we are already overcrowded. Accommodations for inmates are so limited that only one hundred can be accommodated, and that only by doubling up in a manner which is opposed to the best hygienic arrangements and the best morals of the inmates. Four hundred inmates could be accommodated with buildings of such a character as to permit it, at a very little additional expense. There would be no increase in the expense of management, and very little increase in the expense of maintenance; and it is earnestly recommended that an appropriation be granted for the purpose of building a brick dormitory on the south side of the grounds, capable of accommodating two hundred inmates, and a hospital building of brick, to be located on the southwest corner of the lot belonging to the State, containing four wards, an apothecary-shop, a kitchen for the sick, and a room for the use of nurses. This can be done at an expense not to exceed \$25,000; and will be necessary if, at any time, a fire should occur and destroy the old frame buildings, which are now a constant menace to life and must soon, through decay, be replaced by others.

We are constantly requested to admit inmates from different portions of the State, and find it impossible to accommodate ourselves to the intent of the law of accepting patients from the different counties in proportion to the taxes or the number of inhabitants.

The institution has now grown beyond the most sanguine expectations of those who first proposed a home for these unfortunates, than which there is no better charity. And the honor of the State requires that each and every person so unfortunate as to lose his sight should be cared for in a way commensurate with the great State which grants this charity, and also in proportion to the unfortunate circumstances which cause so many blind among the mining districts. We naturally have to support a larger per cent of blind than any other State, on account of accidents which occur in mining and similar pursuits.

It must be borne in mind that the inmates of the Home who are now our best workmen, and are adding most to the profit of our factory, are becoming older and, in a short time, instead of being contributors to the assets, will become incapacitated for work, and must be taken care of by the State.

The other institutions of a similar character have found it advantageous to teach trades, such as making harness and mattresses; but it is impossible to obtain any income from these inmates during the time of tuition, the State being benefited much more by teaching the blind to become self-supporting than it would by their labor in some other direction while remaining at the Home; the piano-tuning especially, while being in line with the purposes of the Home, as expressed by the statutes under which it exists, can of itself be only a tax while doing the greatest benefit to those inmates who are able to master it. There is the expense of teaching without any corresponding income, but, when taught, the pupil leaves the Home able to support himself, which is the highest aim that we consider should be attained.

N. T. JAMES,
President.

REPORT OF THE COMMISSIONERS

FOR THE

Revision and Reform of the Law.

DECEMBER 5, 1896.

FRANK T. BALDWIN, RYLAND B. WALLACE, JAMES C. DALY,
Commissioners.

PETER J. SHIELDS, - - - SECRETARY.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.
1896.



OFFICE OF THE COMMISSIONERS FOR THE
REVISION AND REFORM OF THE LAW,
SACRAMENTO, CAL., December 5, 1896. }

To his Excellency JAMES H. BUDD, Governor of the State of California:

SIR: The undersigned herewith present the report of the Commissioners for the Revision and Reform of the Law, as required by the Act of the Legislature under which they were appointed. Owing to the unavoidable absence of Hon. Frank T. Baldwin, one of the Commissioners, during the preparation of the report, it contains those recommendations which have been agreed upon by the two other Commissioners.

The general scope of the recommendations made is to embody in the Codes, as far as practicable, the many statutes in force, in their appropriate places therein. The mass and divergent character of such statutes is, however, so great, that the work of their codification is not complete. We have attempted to harmonize the many conflicting sections of the Codes, and to place all provisions appropriately therein. Many changes in the numbering of sections have been recommended, to afford numbers in proper chapters for duplicate-numbered sections, and for provisions of statutes in force which have in this revision been placed in the Codes. No disturbance has, however, been made in the numbering of those important and leading sections which have been made the subject of judicial decision. The enumeration of statutes in force has been reserved for a subsequent report. Proposed changes in the management of public institutions have been considered, and recommendations in that regard will be made to the Legislature at its coming session.

The Commissioners are under obligations to the bench and bar of this State for many valuable suggestions.

The report is submitted with the hope that it will be carefully examined by those interested, and especially by the legal profession, whose comments thereon will enable us to correct it where erroneous, and supply its deficiencies where incomplete.

Respectfully submitted.

RYLAND B. WALLACE,
J. C. DALY,

Commissioners for the Revision and Reform of the Law.



PROPOSED AMENDMENTS TO THE PENAL CODE.

SECTION 15. To be amended to read as follows:

Sec. 15. A crime or public offense is an act committed or omitted in violation of a law forbidding or commanding it, and to which is annexed, upon conviction, either of the following punishments:

1. Death;
2. Imprisonment;
3. Fine;
4. Removal from office;
5. Disqualification to hold and enjoy any office of honor, trust, or profit in this State;
6. Other penal discipline.

NOTE.—The amendment is the addition of, "Other penal discipline," which is desirable because in all offenses of minors the court, in its discretion, may commit the offender to a charitable institution or person willing to receive him. (See Section 1388, this Code.)

SECTION 18. To be amended to read as follows:

Sec. 18. Except in cases where a different punishment is prescribed by this Code, every offense declared to be a felony is punishable by imprisonment in the state prison not exceeding five years, or by a fine of not exceeding one thousand dollars, or by both.

NOTE.—The amendment allows the court, in its discretion, to punish by fine, or by both fine and imprisonment.

SECTION 22. To be amended to read as follows:

Sec. 22. No act committed by a person while in a state of voluntary intoxication is less criminal by reason of his having been in such condition. But whenever the actual existence of any particular purpose, motive, or intent is a necessary element to constitute any particular species or degree of crime, the jury may take into consideration the fact that the accused was intoxicated at the time, in determining the purpose, motive, or intent with which he committed the act; but evidence of such intoxication must be received with great caution.

NOTE.—The amendment is the addition of, "but evidence of such intoxication must be received with great caution," which makes the section conform to the decision in *People vs. Vincent*, 95 Cal.

SECTION 27. To be amended to read as follows:

Sec. 27. The following persons are liable to punishment under the laws of this State:

1. All persons who commit, in whole or in part, any crime within this State;

2. All who commit without this State any offense which, if committed within this State, would be larceny or robbery under the laws of this State; and bring to, or are found with, the property stolen, or feloniously appropriated, within this State;

3. All who, being out of this State, cause or aid, advise or encourage, another person to commit a crime within this State, and are afterward found therein;

4. All who, being out of this State, abduct or kidnap, by force or fraud, any person, contrary to the law of the place where such act is committed, and bring, send, or convey, such person within the limits of this State, and are afterward found therein;

5. All who leave the State for the purpose of committing a crime, and actually commit the same outside this State, as provided in this Code, and are afterward found therein.

SECTION 28. A new section to be added to read as follows:

Presumption of responsibility for acts.

Sec. 28. A person is presumed to be responsible for his acts. The burden of proving that he is irresponsible is upon the accused person, except as otherwise prescribed by this Code.

SECTION 29. A new section to be added to read as follows:

Morbid criminal propensity no defense.

Sec. 29. A morbid propensity to commit prohibited acts, existing in the mind of a person who is not shown to be incapable of knowing the wrongfulness of such acts, forms no defense to a prosecution therefor.

SECTION 63. A new section to be added to read as follows:

Prohibiting the sale of intoxicating liquors on election day.

Sec. 63. Every person keeping a public house, saloon, or drinking-place, either licensed or unlicensed, who shall sell, give away, or furnish spirituous or malt liquors, wine, or any other intoxicating beverages, on any part of any day set apart, or to be set apart, for any general or special election, by the citizens, in any election district or precinct, in any of the counties within this State, where an election is in progress, during the hours when by law in said district or precinct the election polls are required to be kept open, is guilty of a misdemeanor.

NOTE.—This section contains the provisions of "An Act to prevent the sale of intoxicating liquors on election days," approved March 7, 1874.

SECTION 68. To be amended to read as follows:

Sec. 68. Every executive officer, or person elected or appointed to, or a candidate or applicant for, an executive office, who asks, receives, or agrees to receive, any bribe, emolument, gratuity, or reward, upon any agreement or understanding that his vote, opinion, or action upon any matter then pending, or which may be brought before him, in his official capacity, shall be influenced thereby, is punishable by imprisonment in the state prison for a term of not less than one, nor more than fourteen, years, and in addition thereto forfeits his office, and is forever disqualified from holding any office in this State.

NOTE.—This amendment is to include in the offense prohibited by the statute the taking of bribes by a candidate, or applicant, prior to his election or appointment.

SECTION 70. To be amended to read as follows:

Sec. 70. Every executive or ministerial officer who knowingly asks or receives any bribe, emolument, gratuity, or reward, or any promise thereof, excepting such as may be authorized by law, for doing, or having theretofore done, any official act, is guilty of a misdemeanor.

NOTE.—This amendment is suggested by the case of *People vs. Kalloch*, 60 Cal. 117.

SECTION 76. To be amended to read as follows:

Sec. 76. Every officer whose office is abolished by law, or who, after the expiration of the time for which he may be appointed or elected, or after he has resigned or been legally removed from office, willfully and unlawfully withholds or detains from his successor, or other person entitled thereto, the records, papers, documents, or other writing appertaining or belonging to his office, or mutilates, destroys, or takes away the same, or willfully and unlawfully withholds or detains from his successor, or other person entitled thereto, any money in his custody as such officer, shall be punished by imprisonment in the state prison for not less than one, nor more than ten, years.

NOTE.—The amendment makes the section apply to moneys in the custody of an officer where he refuses to turn over the same to his successors. The present section does not apply to such moneys. (See *People vs. Hamilton*, 103 Cal. 495.)

SECTION 78, of Part I, Title V. A new section to be added to read as follows:

Intoxication of officers.

Sec. 78. Any State officer, or officer of a town, village, city, county, or city and county, who shall be intoxicated while in the discharge of the duties of his office, or who, by reason of intoxication, is disqualified for the discharge, or neglects the duties of his office, shall be guilty of a

misdemeanor, and, on conviction of such misdemeanor, shall forfeit his office.

NOTE.—This section is taken from "An Act relating to the intoxication of officers," approved April 15, 1880.

SECTION 99. To be amended to read as follows:

Sec. 99. Every Superintendent of State Printing, who, during his continuance in office, shall have any interest, directly or indirectly, in any printing of any kind, binding, engraving, or lithographing, connected with the State printing, or in any contract for furnishing paper, or other printing stock or material connected with the State printing, is punishable by imprisonment in the state prison for not less than two, nor more than five, years, or by a fine of not less than one thousand nor more than three thousand dollars, or by both such fine and imprisonment.

SECTION 100. To be amended to read as follows:

Sec. 100. Every Superintendent of State Printing who shall corruptly collude with any person or persons furnishing paper or materials, or bidding therefor, or with any person or persons furnishing materials connected with the State printing, or who shall have a secret understanding with any person or persons to defraud the State, or by which the State shall be defrauded, or made to sustain a loss, shall, upon conviction thereof, forfeit his office and is punishable by imprisonment in the state prison for not less than two years, or by a fine of not less than one thousand nor more than three thousand dollars, or by both such fine and imprisonment.

SECTION 119. To be amended to read as follows:

Sec. 119. The term "oath," as used in the last section, includes an affirmation, and every other mode authorized by law of attesting the truth of that which is stated, and also the signing of an instrument with the intention that the seal of an officer, authorized to administer oaths, shall be afterward affixed thereto, so as to make such instrument appear as duly and legally sworn to by the person signing.

SECTION 124. To be amended to read as follows:

Making depositions, etc., when deemed complete.

Sec. 124. The making of a deposition, affidavit, or certificate is deemed to be complete within the provisions of this chapter, from the time when it is delivered by the accused to any other person, with the intent that it be uttered or published as true.

NOTE.—The effect of this amendment is to make false statements in an affidavit come under the provisions of this section.

SECTION 129. A new section to be added to read as follows:

False returns—Perjury.

Sec. 129. Every person, who, being required by law to make any return, statement, or report, under oath, willfully makes any such return, statement, or report, knowing the same to be false in any particular, is guilty of perjury.

SECTION 137. To be amended to read as follows:

Sec. 137. Every person who gives, or offers, or promises to give, to any witness, or person about to be, or who may be called, as a witness, any bribe, emolument, gratuity, or reward, upon any understanding or agreement that the testimony of such person shall be thereby influenced, or who attempts by any means fraudulently to induce any person to give false, or withhold true, testimony, is guilty of a felony.

SECTION 138. To be amended to read as follows:

Sec. 138. Every person who is a witness, or who is about to be, or who may be called as such, who receives, or offers to receive, any bribe, emolument, gratuity, or reward, upon any understanding that his testimony shall be influenced thereby, or that he will absent himself from the trial or proceeding upon which his testimony is or may be required, is guilty of a felony.

NOTE.—The amendments proposed to the two foregoing sections place a person who may be called as a witness within the scope thereof.

SECTIONS 158 and 159 to be consolidated into Section 158, which section is to read as follows:

Sec. 158. Common barratry is the practice of exciting groundless judicial proceedings, and is punishable by imprisonment in the county jail not exceeding six months, and by a fine not exceeding five hundred dollars; *provided*, that no person can be convicted of common barratry except upon proof that he has excited suits or proceedings at law in at least three instances, and with a corrupt or malicious intent to vex and annoy.

NOTE.—The section is amended to require only a corrupt or malicious intent, while at present it requires that the intent shall be both corrupt *and* malicious.

SECTION 159½ to be numbered 159.

SECTION 165. To be amended to read as follows:

Sec. 165. Every person who gives or offers any bribe, emolument, gratuity, or reward, to any member of any Common Council, Board of Supervisors, or Board of Trustees, of any county, city, city and county, or corporation, with intent to corruptly influence such member in his action on any matter or subject, pending before, or which may afterward be considered by, the body of which he is a member, and every

member of any of the bodies mentioned in this section who receives, or offers to receive, any such bribe, emolument, gratuity, or reward, is punishable by imprisonment in the state prison for a term of not less than one, nor more than fourteen, years, and is disqualified from holding any office in this State.

NOTE.—The amendment makes the section apply to matters which may be considered after the bribe is offered or accepted.

SECTION 167. To be amended to read as follows :

Sec. 167. Every public officer authorized by law to make or give any certificate, or other writing, who makes and delivers as true any such certificate or writing, containing any statement which he knows to be false; and every officer authorized by law to administer oaths, who certifies that a person has personally appeared before him and subscribed and sworn to a document, when in fact such person did not personally appear before him and subscribe and swear to such document, is guilty of a felony.

SECTION 172. To be amended to read as follows:

Sec. 172. Every person who, within two miles of the lands belonging to this State, upon which is situated any state prison; or within one mile of any insane asylum belonging to the State, or within the state capitol, or within the limits of the grounds adjacent and belonging thereto, sells, gives away, or exposes for sale, any vinous or alcoholic liquors, is guilty of a misdemeanor.

SECTION 178. To be repealed as repugnant to the constitution of the United States, being in conflict with the treaty between the United States and China.

SECTION 179. To be repealed for the same reason as Section 178.

SECTION 178. A new section to be added to read as follows :

Prohibiting the sale of intoxicating liquors within two miles of the University of California.

Sec. 178. Any person who keeps, or exposes for sale, or sells, or gives, or permits others to take, for any consideration, directly or indirectly, any malt, spirituous, or other alcoholic liquors, upon or within two miles of the grounds belonging and adjacent to the University of California, in Alameda County, is guilty of a misdemeanor, and is punishable by imprisonment in the county jail of Alameda County for not less than thirty, nor more than ninety, days, or by a fine not less than fifty, nor more than one hundred, dollars, or by both such fine and imprisonment.

NOTE.—This section contains substantially the provisions of the Act of December 23, 1873, relating to the subject.

SECTION 179. A new section to be added to read as follows:

Communication with convicts confined in the state prison.

Sec. 179. Every person, not authorized by law, who, without the permission of the warden, or other officer in charge of either of the state prisons of this State, communicates with any convict therein, or brings into either of said state prisons any letter or writing, addressed to, or intended for, any convict therein, or carries out of either of said state prisons any letter or writing, from any convict therein, is guilty of a misdemeanor.

SECTION 180. A new section to be added to read as follows:

Furnishing noxious drugs to convicts.

Sec. 180. Every person, not authorized by law, who shall sell, give, or furnish to any convict, confined in either of the state prisons of this State, or shall place upon any of the grounds of either of said state prisons, or in the vicinity thereof, any opium, morphine, cocaine, or other noxious drugs, is guilty of a felony.

SECTION 181. A new section to be added to read as follows:

Entering state prison grounds in the night-time.

Sec. 181. Every person who shall, without the consent of the warden, or other officer in charge of either of the state prisons of this State, go or be upon the grounds of either of said prisons, or lands belonging to the State adjacent thereto, in the night-time, is guilty of a misdemeanor.

SECTION 192. To be amended to read as follows:

Sec. 192. Manslaughter is the unlawful killing of a human being, without malice. It is of two kinds :

1. Voluntary—Upon a sudden quarrel or heat of passion; but in order to constitute voluntary manslaughter, there must be a serious and highly provoking injury inflicted upon the person killing, sufficient to excite an irresistible passion in a reasonable being;

2. Involuntary—In the commission or attempt to commit an abortion unlawfully, in consequence of which, or of any disease ensuing therefrom, the woman dies, as provided in part one, title nine, chapter three of this Code ; or in the commission of an unlawful act (other than an abortion or attempt to commit an abortion) not amounting to felony; or in the commission of a lawful act which might produce death, in an unlawful manner, or without due caution and circumspection.

NOTE.—The effect of the amendment is to require a serious and highly provoking injury, sufficient to excite irresistible passion in a reasonable being, to constitute voluntary manslaughter; and to include death caused by abortion in the definition of involuntary manslaughter.

SECTION 207. To be amended to read as follows:

Sec. 207. Every person who forcibly steals, takes, or arrests any person in this State, and carries him to any place, or who forcibly takes or arrests any person with a design to take him out of this State, without having established a claim according to the laws of the United States, or of this State, or who hires, persuades, entices, decoys, or seduces by false promises, misrepresentations, or the like, any person to go out of this State, or to be taken or removed therefrom, for the purpose and with the intent to sell such person into slavery or involuntary servitude, or otherwise employs him for his own use, or for the use of another, without the free will and consent of such persuaded person; and every person who, being out of this State, abducts or takes by force or fraud any person contrary to the law of the place where such act is committed, and brings, sends, or conveys, such person within the limits of this State, and is afterward found within the limits thereof, is guilty of kidnaping.

NOTE.—The present section requires the taking of the person out of the county to constitute kidnaping. The object of the amendment is to make any carrying, although within a county, sufficient to constitute kidnaping.

SECTION 218. To be amended to read as follows:

Railroad felony defined.

Sec. 218. Every person who goes upon, or boards, any railroad train, with the intention of robbing any passenger thereon, or of taking from said train any property or money in the possession, or care, or under the control of any person thereon, or who interferes in any manner with any switch, rail, sleeper, viaduct, culvert, embankment, or structure, appertaining to, or connected with, any railroad, or places any dynamite, or other explosive substance or material, upon or near the track of any railroad, or who sets fire to any railroad bridge or trestle, or who shows, masks, extinguishes, or alters any light or other signal, or exhibits, or compels any other person to exhibit, any false light or signal, or who stops any train, or slackens the speed thereof, or who compels, or attempts to compel, any person in charge or control thereof to stop any train or slacken the speed thereof, with the intention either to rob any passenger thereon, or to take from said train any property or money in the possession or charge, or under the control of, any person thereon, is guilty of railroad felony.

SECTION 219. A new section to be added to read as follows:

Punishment for railroad felony.

Sec. 219. Every person guilty of railroad felony shall suffer death, or imprisonment in the state prison for life, in the discretion of the jury trying the same.

SECTION 223. A new section to be added to read as follows:

Aiding, advising, or encouraging suicide.

Sec. 223. Every person who deliberately aids, advises, or encourages another to commit suicide, is guilty of a felony.

NOTE.—This is the second of three sections number 400 of this Code.

SECTION 232. To be amended to read as follows:

Sec. 232. No person shall be excused from testifying or answering any question upon any investigation or trial for a violation of any of the provisions of this chapter, upon the ground that his testimony might tend to convict him of a crime. But no evidence given upon any examination of a person so testifying shall be received against him in any criminal prosecution or proceeding.

NOTE.—The only change made by the above amendment is substituting the word “any” for the word “either,” which seems necessary, as there are more than two of such provisions.

SECTION 258. A new section to be added to Chapter X, Part I, Title VIII, to read as follows:

Slander of females.

Sec. 258. Every person who, in a public manner, or at any meeting or assemblage, where more than twenty persons are present, states or charges that any class, or portion of a class, of females in a community, professing to lead virtuous lives, is unchaste, whether such statement or charge is true or false, is guilty of a misdemeanor.

SECTION 270. A new section to be added to Chapter I, Part I, Title IX, to read as follows:

Enticement of females for immoral purposes.

Sec. 270. Every person who inveigles or entices any unmarried female, of previous chaste character, under the age of eighteen years, into any house of ill-fame, or house of assignation, or elsewhere, for the purpose of prostitution, and every person who aids or assists in such abduction for such purpose, and every person who, by any false pretenses, false representation, or other fraudulent means, procures any female to have illicit carnal connection with any man, is punishable by imprisonment in the state prison not exceeding one year, or by a fine not exceeding one thousand dollars, or by both.

NOTE.—The present Section 270 is to be numbered Section 273.

SECTION 271. A new section to be added to Chapter I, Part I, Title IX, to read as follows:

Adultery.

Sec. 271. Every person who lives in a state of open and notorious

cohabitation and adultery is guilty of a misdemeanor, and is punishable by a fine not exceeding one thousand dollars, or by imprisonment in the county jail not exceeding one year, or by both.

NOTE.—The foregoing is a part of the Act of 1872, to punish adultery, and the present section is to be numbered Section 274.

SECTION 272. A new section to be added to Chapter I, Part I, Title IX, to read as follows:

Double adultery.

Sec. 272. If two persons, each being married to another, live together in a state of open and notorious cohabitation and adultery, each is guilty of a felony, and is punishable by imprisonment in the state prison not exceeding five years; and the recorded certificate of marriage, or a certified copy thereof, there being no decree of divorce, proves the marriage of the persons for the purposes of this section.

NOTE.—The present Section 272 is to be numbered Section 275.

The present Section 270 to be numbered 273 in Chapter II, Part I, Title IX.

The present Section 271 to be numbered 274 in Chapter II, Part I, Title IX.

The present Section 272 to be numbered 275 in Chapter II, Part I, Title IX.

The present Section 274 to be numbered 276 in Chapter III, Part I, Title IX.

The present Section 275 to be numbered 277 in Chapter III, Part I, Title IX.

SECTION 278. A new section to be added to be Section 278, in Chapter III, Part I, Title IX, to read as follows:

Causing death by abortion—Manslaughter.

Sec. 278. Every person who provides, supplies, or administers to any pregnant woman, or procures any such woman to take any medicine, drug, or substance, or uses or employs any instrument, or other means whatever, with the intent thereby to procure a miscarriage, unless the same is necessary to preserve her life, and said woman die in consequence thereof, or in consequence of any disease ensuing therefrom, or caused thereby, is guilty of manslaughter.

NOTE.—The addition of this section, and the change made in the definition in voluntary manslaughter (*vide* Section 192), will reduce this crime from murder in the second degree to manslaughter. Experience has demonstrated that convictions cannot be obtained in these cases where the penalty is imprisonment for life. In New York, where the crime is manslaughter, convictions are readily obtained. The change is therefore recommended, so that those who commit this crime shall not go entirely unpunished.

The present Section 278 to be numbered 279, in Chapter IV, Part I, Title IX.

SECTION 283. To be amended to read as follows:

Sec. 283. Bigamy is punishable by a fine not exceeding two thousand dollars, or by imprisonment in the state prison not exceeding ten years.

NOTE.—This amendment changes the limit of imprisonment from three to ten years, the former being grossly inadequate for many cases which might arise.

SECTION 285. To be amended to read as follows:

Sec. 285. Persons being within the degrees of consanguinity within which marriages are declared to be incestuous and void, who intermarry with each other, or who commit fornication with each other; and persons, being inhabitants of this State, who leave this State for the purpose of intermarrying with any person within the degree of consanguinity within which marriages are declared by the laws of this State to be incestuous and void, and intermarry with such person outside of this State, are punishable by imprisonment in the state prison not exceeding ten years.

SECTION 292. To be amended to read as follows:

Sec. 292. The duty of burying the body of a deceased person devolves upon the persons hereinafter specified, and in the following order:

1. If the deceased was a married person, the duty of burial devolves upon the surviving spouse;

2. If the deceased was not a married person, and left any kindred, the duty devolves upon the person or persons in the same degree nearest of kin to the deceased, being of adult age and within this State, and possessed of sufficient means to defray the necessary expenses;

3. If the deceased left no surviving spouse or kindred answering the foregoing description, the duty of burial devolves upon the persons charged with the support of the poor in the locality in which the death occurs;

4. In case the person upon whom the duty of burial is cast by the foregoing provisions omits to make such burial within a reasonable time, the duty devolves upon the person next specified, and, if all omit to act, it devolves upon the person in the actual possession of the premises where the death occurs or the body is found; or, if there is no person in the actual possession of such premises, then upon the owner thereof; when the death occurs, or the body is found, upon a vessel, by the master thereof, and, if there is no master, by the owner thereof.

5. Such burials may be made in any cemetery organized under the laws of this State, or any now existing in which interments have been made, or any that may hereafter be established or organized by the Board of Supervisors of any county, or city and county, in this State.

SECTION 298. A new section to be added to Chapter VI, Part I, Title IX, to read as follows:

Relative to exhumation of bodies.

Sec. 298. Every person who disinters, exhumes, removes, or causes to be disinterred, exhumed, or removed, from a grave, vault, or other receptacle or burial place, the body or remains of any deceased person, without a permit therefor having first been obtained from the Board of Health, or Health Officer, if such officer there be, or from the Mayor or other head of the municipal government of the city, town, or city and county; and every person who moves, transports, or causes to be moved or transported, on or over the streets or highways of any city, town, or city and county, of this State, the body or remains of a deceased person, which shall have been disinterred or exhumed without said permit, as provided in the Political Code, shall be guilty of a misdemeanor, and shall be punished by a fine not less than fifty nor more than five hundred dollars, or by imprisonment in the county jail for not less than thirty days nor more than six months, or by both such fine and imprisonment.

NOTE.—The above is part of "An Act to protect public health," approved April 1, 1878.

SECTION 299. A new section to be added to read as follows:

Minor under sixteen years of age not to enter saloon.

Sec. 299. Every person who admits any minor under the age of sixteen years of age, at any time, into any saloon or place of entertainment where any spirituous liquors, or wines, or intoxicating or malt liquors are sold, exchanged, or given away, at any time, or permit him to remain therein, or permit such minor to remain at any place of amusement known as a dance-house, or concert-saloon, unless such minor is accompanied by his parent or guardian, is guilty of a misdemeanor.

NOTE.—This section is Section 1 of "An Act for the protection of children," etc., approved March 30, 1878.

SECTION 300. A new section to be added to read as follows:

Forbidding employing or apprenticing minors for immoral purposes.

Sec. 300. Every person, relative, or employer, having the care, custody, or control of any child under the age of sixteen years, whether as parent, relative, guardian, employer, or otherwise, who shall permit such child to beg, or who shall exhibit, use, or employ, or who shall in any manner or under any pretense sell, apprentice, give away, let out, or otherwise dispose of such child to any person, under any name, title, or pretense, in or for the vocation, occupation, service, or purpose of singing, playing on musical instruments, rope or wire walking, dancing,

begging, or peddling, or as a gymnast, acrobat, contortionist, or rider, in any place whatsoever, or for or in any obscene, indecent, or immoral purpose, exhibition, or practice whatsoever, or for or in any business, exhibition, or vocation injurious to the health or dangerous to the life or limb of such child; or who shall cause, procure, or encourage any such child to engage therein, and every person who shall take, receive, hire, employ, use, exhibit, or have in custody, any such child for any of the purposes hereinbefore in this section mentioned, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty, nor more than two hundred and fifty, dollars, or by imprisonment in the county jail for a term not exceeding six months, or by both such fine and imprisonment; *provided*, that nothing in this section contained shall apply to, or affect the employment or use of, any such child as a singer or musician in any church, school, or academy, or the teaching or learning of the science or practice of music; or the employment of any such child as a musician at any concert or other musical entertainment on the written consent of the Mayor of the city, or President of the Board of Trustees, of the town where such concert or entertainment shall take place.

SECTION 301. A new section to be added to read as follows:

Relating to certain minors.

Sec. 301. Any child apparently under the age of sixteen years:

1. That is found begging, or receiving or gathering alms (whether actually begging, or under the pretext of selling or offering for sale anything), or being in any street, road, or public place for the purpose of so begging, or gathering or receiving alms;

2. That is found wandering and not having any house or settled place of abode, or proper guardianship, or visible means of subsistence;

3. That is found destitute, either being an orphan, or having a vicious parent, or who is undergoing penal servitude or imprisonment;

4. That frequents the company of reputed thieves or prostitutes, or houses of prostitution or assignation, or dance-houses, concert-saloons, theaters, and varieties, without parent or guardian—is guilty of a misdemeanor.

Such misdemeanor is punishable by imprisonment, or commitment to an orphan asylum, society for the prevention of cruelty to children, or other institution, for a term not to exceed one year, in the discretion of the court or magistrate; but no child, apparently under the age of sixteen years, shall be placed in any prison or place of confinement, or in any court-room, or in any vehicle for transportation, or in any place in com-

pany with adults charged with, or convicted of, crime, except in the presence of a proper official.

NOTE.—The foregoing three sections embrace a portion of the provisions of "An Act for the protection of children," etc., approved March 30, 1878, and of "An Act relating to children," etc., of the same date. The only change is that the last section limits the term of commitment to an orphan asylum, etc., to one year, while the Acts contain no limit whatever.

SECTION 303. To be repealed as unconstitutional.

SECTION 306. To be repealed as unconstitutional.

SECTION 303. A new section to be added to read as follows:

Selling intoxicants to minors.

Sec. 303. Every person, except a parent ministering to his child, a guardian to his ward, or a physician to his patient, who sells or gives to any minor under the age of sixteen years, to be by him drank, as a beverage, any intoxicating drink, is guilty of a misdemeanor, and is punishable by a fine not exceeding one hundred dollars, or by imprisonment in the county jail not exceeding three months.

NOTE.—The provisions of the above section are contained in the Act of March 4, 1872.

SECTION 306. A new section to be added to read as follows:

Causing suffering to minors.

Sec. 306. Every person who shall willfully cause or permit any child to suffer, or who shall inflict thereon unjustifiable physical pain or mental suffering, and whoever, having the care or custody of any child, shall willfully cause or permit the life or limb of such child to be endangered, or the health of such child to be injured, or any person who shall willfully cause or permit such child to be placed in such a situation that its life or limb may be endangered, or its health shall be likely to be injured, shall be guilty of a misdemeanor.

NOTE.—This section contains the provisions of Section 4, of Act of March 30, 1878.

SECTION 310½. To be repealed as unconstitutional. (See *ex parte Jentzsch*, 44 Pac. Rep. 803.)

SECTION 325. To be amended to read as follows:

Sec. 325. All moneys and property offered for sale or distribution in violation of any of the provisions of this chapter are forfeited to the State, and may be recovered by information filed, or by an action brought by the Attorney-General, or by any District Attorney, in the name of the State. Upon the filing of the information or complaint, the clerk of the court, or if the suit is in a Justice's Court, the justice, must issue an attachment against the property mentioned in the complaint or informa-

tion, which attachment has the same force and effect against such property, and is issued in the same manner, as attachments issued from the Superior Courts in civil cases.

NOTE.—The only change in this section is the substitution of the words "Superior Courts" for the words "District Courts."

SECTION 339. To be amended to read as follows:

Sec. 339. Every person who carries on the business, either of a pawnbroker, or a junk-dealer, who fails at the time of the transaction to enter in a register kept by him for that purpose, in the English language, the date, duration, amount, and rate of interest of every loan made by him, or an accurate description of the property pledged, or the name and residence of the pledgor, or to deliver to the pledgor a written copy of such entry, or to keep an account, in writing, of all sales made by him, is guilty of a misdemeanor.

SECTION 341. To be amended to read as follows:

Sec. 341. Every pawnbroker, or junk-dealer, who sells any article pledged to him, and unredeemed, until it has remained in his possession six months after the last day fixed by the contract for redemption, or who makes any sale, without publishing in a newspaper printed in the city, town, or county, at least five days before such sale, a notice containing a list of the articles to be sold, and specifying the time and place of sale, is guilty of a misdemeanor.

SECTION 342. To be amended to read as follows:

Sec. 342. Every pawnbroker, or junk-dealer, who willfully refuses to disclose to the pledgor, or his agent, the name of the purchaser, and the price received by him, for any article received by him in pledge, and subsequently sold, or who, after deducting from the proceeds of any sale, the amount of the loan and interest due thereon, and four per cent of the loan for expenses of sale, refuses, on demand, to pay the balance to the pledgor, or his agent, is guilty of a misdemeanor.

NOTE.—The amendment to the three last above sections consists in making them applicable to junk-dealers, which is the provision of Section 502. It seems proper to make the amendment rather than to have in the Code separate sections which produce that result.

SECTION 374. To be amended to read as follows:

Sec. 374. Every person who puts the carcass of any dead animal, or the offal from any slaughter-pen, corral, or butcher-shop, into any river, creek, pond, reservoir, stream, street, alley, public highway, or road in common use, or who attempts to destroy the same by fire within one fourth of a mile of any city, town, or village, except it be in a crematory, the construction and operation of which is satisfactory to the board of health in such city, town, or village; and every person who puts any

water-closet or privy, or the carcass of any dead animal, or any offal of any kind, in or upon the borders of any stream, pond, lake, or reservoir, from which water is drawn for the supply of the inhabitants of any city, city and county, or any town in this State, so that the drainage from such water-closet, privy, carcass, or offal may be taken up by or in such stream, pond, lake, or reservoir; or who allows any water-closet or privy, or carcass of any dead animal, or any offal of any kind, to remain in or upon the borders of any such stream, pond, lake, or reservoir within the boundaries of any land owned or occupied by him, so that the drainage from such water-closet, privy, carcass, or offal may be taken up by or in such stream, pond, lake, or reservoir; or who keeps any horses, mules, cattle, swine, sheep, or live stock of any kind, penned, corralled, or housed on, over, or on the borders of any such stream, pond, lake, or reservoir, so that the waters thereof shall become polluted by reason thereof; or who bathes in any such stream, pond, lake, or reservoir; or who by any other means fouls or pollutes the waters of any such stream, pond, lake, or reservoir, is guilty of a misdemeanor, and upon conviction thereof shall be punished as prescribed in section three hundred and seventy-seven of this Code.

NOTE.—The amendment changes the word "cemetery" to "crematory," in the fifth line of the section.

All that portion of Title X, Part I, after Section 382, to be amended to read as follows:

Regulating sale of oleomargarine.

Sec. 383. Every person or corporation who shall manufacture for sale, offer or expose for sale, any article of substance in semblance of butter, not the legitimate product of the dairy, and not made exclusively of milk or cream, or into which the oil or fat of animals, not produced from milk, enters as a component part, or into which the oil or fat of animals, not produced from milk, has been introduced to take the place of cream, and shall not distinctly stamp, brand, or mark, in some conspicuous place upon every parcel of such article or substance, the word "Oleomargarine," in plain letters, not less than one fourth of one inch square, each; and who shall not, in case of retail sale of such article or substance, in parcels or otherwise, in all cases, deliver therewith to the purchaser, a printed label, bearing the plainly printed word "Oleomargarine," the said word to be printed with type, each letter of which shall not be less than one fourth of one inch square;

And every person dealing, whether by wholesale or retail, in the article or substance described in this section, and every hotel or restaurant keeper, or boarding-house keeper, in whose hotel, or restaurant, or boarding-house, such article or substance is used, who shall not continuously keep conspicuously posted up, in not less than three exposed positions,

in and about their respective places of business, a printed notice, in the following words, viz.: "Oleomargarine sold here," the said notice to be plainly printed, with letters not less than two inches square, each;

And each and every hotel-keeper and restaurant-keeper, boarding-house keeper, or proprietor of any other places where meals are furnished for pay, who may use, in their respective places of business, any of the article or substance described in this section, who shall not, upon the furnishing of the same to his guests, or customers, if inquiry is made, cause each and every such guest, or customer, to be distinctly informed that the said article is not butter, the genuine production of the dairy, but is "oleomargarine"—is guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than five, nor more than five hundred, dollars, or by imprisonment for not more than three months, or by both such fine and imprisonment. And it shall be the duty of the court trying said offense, to order the payment of one half of any fine which may be imposed therein, to the person giving the information upon which the prosecution was based and the conviction had, and such fine may be collected by execution as in civil cases.

SECTION 384. A new section to be added to read as follows:

Prohibiting sale of adulterated syrup.

Sec. 384. Any person who shall knowingly sell, or keep or offer for sale, or otherwise dispose of any syrup, or golden-drips syrup, silver-drips syrup, or molasses, containing muriatic or sulphuric acids, or glucose, or adulterated with any other substance to improve the color thereof, shall be guilty of a misdemeanor.

SECTION 385. A new section to be added to read as follows:

Disposing of tainted articles.

Sec. 385. Every person who knowingly sells, or keeps or offers for sale, or otherwise disposes of, any article of food, drink, drug, or medicine, knowing that the same has become tainted, decayed, spoiled, or otherwise unwholesome, or unfit to be eaten or drank, with intent to permit the same to be eaten or drank, is guilty of a misdemeanor.

SECTION 386. A new section to be added to read as follows:

Setting fire to forests.

Sec. 386. Any person or persons who shall willfully and deliberately set fire to any wooded country or forest belonging to this State or the United States, within this State, or to any place from which fire shall be communicated to any such wooded country or forest, or who shall accidentally set fire to any such wooded country or forest, or to any place from which fire shall be communicated to any such wooded coun-

try or forest, and shall not extinguish the same, or use every effort to that end, or who shall build any fire, for lawful purposes, or otherwise, in or near any such wooded country or forest, and through carelessness or neglect shall permit said fire to extend or burn through such wooded country or forest, is guilty of a misdemeanor, and upon conviction before a court of competent jurisdiction, shall be punishable by a fine not exceeding one thousand dollars, or by imprisonment not exceeding one year, or by both such fine and imprisonment; *provided*, that nothing herein contained shall apply to any person who in good faith shall set a back-fire to prevent the extension of a fire already burning. All fines collected under this section shall be paid into the county treasury for the benefit of the common school fund of the county in which they are collected.

SECTION 387. A new section to be added to read as follows:

Setting woods on fire.

Sec. 387. Every person who willfully or negligently sets on fire, or causes or procures to be set on fire, any woods, prairies, grasses, or grain, on any lands, is guilty of a misdemeanor.

SECTION 388. A new section to be added to read as follows:

Obstructing attempts to extinguish fires.

Sec. 388. Every person who, at the burning of a building, disobeys the lawful orders of any public officer, or fireman, or offers any resistance to, or interference with, the lawful efforts of any fireman, or company of firemen, to extinguish the same, or engages in any disorderly conduct calculated to prevent the same from being extinguished, or who forbids, prevents, or dissuades others from assisting to extinguish the same, is guilty of a misdemeanor.

SECTION 389. A new section to be added to read as follows:

Maintaining bridge or ferry without authority.

Sec. 389. Every person who demands or receives compensation for the use of any bridge or ferry, or sets up or keeps any road, bridge, ferry, or constructed ford, for the purpose of receiving any remuneration for the use of the same, without authority of law, is guilty of a misdemeanor.

SECTION 390. A new section to be added to read as follows:

Violating condition of undertaking to keep ferry.

Sec. 390. Every person who, having entered into an undertaking to keep or attend a ferry, violates the conditions of such undertaking, is guilty of a misdemeanor.

SECTION 391. A new section to be added to read as follows:

Riding or driving faster than a walk on toll bridges.

Sec. 391. Every person who willfully rides or drives faster than a walk, on or over any toll bridge, lawfully licensed, is punishable by a fine not exceeding twenty dollars.

The section now numbered 389 to be 392; Section 390 to be 393; Section 391 to be 394; Section 392 to be 395; Section 393 to be 396; Section 394 to be 397; Section 395 to be 398; Section 396 to be 399; Section 397 to be 400; Section 398 to be 401; Section 399 to be 402.

SECTION 403. A new section to be added to read as follows:

Prohibiting exhibitions of deformities.

Sec. 403. Every person exhibiting the deformities of another, or his own deformities, for hire, is guilty of a misdemeanor; and every person who shall, by any artificial means, give to any person the appearance of deformity, and shall exhibit such person for hire, shall be guilty of a misdemeanor.

SECTION 404. A new section to be added to read as follows:

Prohibiting sale of adulterated candies.

Sec. 404. Every person who adulterates candy, by using in its manufacture terra alba, or any other deleterious substance, or who sells or keeps for sale any candy or candies adulterated with terra alba, or any other deleterious substance, or substances, knowing the same to be adulterated, is guilty of a misdemeanor.

SECTION 405. A new section to be added to read as follows:

Keeping, using, or selling animals affected with disease.

Sec. 405. Any person who shall knowingly sell, or offer for sale, or use, or expose, or who shall cause or procure to be sold, or offered for sale, or used, or exposed, any horse, mule, or other animal having the disease known as glanders, or farcy, or who shall bring, or cause to be brought, or aid in bringing, into this State, any sheep, hog, horse, or cattle, or any domestic animal, knowing the same to be affected with any contagious or infectious disease, shall be guilty of a misdemeanor.

SECTION 406. A new section to be added to read as follows:

Killing of animals affected with disease.

Sec. 406. Every person in possession, or the owner, or having charge of, any animal affected with glanders, or farcy, who upon discovery or knowledge of its condition, omits, neglects, or refuses to deprive such animal of life, shall be guilty of a misdemeanor.

All sections in Title XI to have their number increased by adding four to each number of said sections, respectively.

NOTE.—There are three sections numbered 400, and two sections numbered 401 in this title. The Section 400, relating to encouraging suicide, has been passed to Chapter VI, Part I, Title VIII, in a new section to be known as 223, and the other two sections 400 have been renumbered. There are so many other discrepancies in this title that we deem it advisable that the latter part of the title should be reconstructed as above proposed.

SECTION 447. To be amended to read as follows:

Sec. 447. Arson is the willful and malicious burning of a building, with intent to destroy it. Any person who willfully sets fire to his own building, whereby the building of another is set on fire, is guilty of arson.

NOTE.—The amendment is designed to bring within the definition of arson the burning of a building which is accomplished by firing one adjacent thereto, which may be the property of the person starting the fire.

SECTION 448. To be amended to read as follows:

Sec. 448. Any house, edifice, structure, vessel, railroad car, or other erection, capable of affording shelter for human beings, or appurtenant to, or connected with, an erection so adapted, is a "building" within the meaning of this chapter.

NOTE.—The amendment includes a car within the definition of "building," when such car is capable of affording shelter to human beings.

Chapter II, Part I, Title XIII, omit "and house-breaking" from title of the chapter.

NOTE.—The chapter refers entirely to burglary, the former provisions of the chapter on the subject of house-breaking having been repealed.

SECTION 459. To be amended to read as follows:

Sec. 459. Every person who enters any house, room, apartment, tenement, shop, warehouse, store, mill, barn, stable, outhouse, or other building, tent, vessel, or railroad car, with intent to commit larceny or any felony, is guilty of burglary.

NOTE.—The amendment simplifies the definition of burglary by substituting "with intent to commit larceny" for "with intent to commit grand or petit larceny."

SECTION 480. To be amended to read as follows:

Sec. 480. Every person who makes, or knowingly has in his possession, any die, plate, or apparatus, paper, metal, or machine, or other thing whatever, made use of in counterfeiting coin, current in this State, or elsewhere, or of counterfeiting gold-dust, gold or silver bars, bullion, lumps, pieces, or nuggets, or in counterfeiting bank notes or bills, foreign or domestic, current in this State or otherwise, is punishable by imprisonment in the state prison not less than one nor more than fourteen

years, and all such dies, plates, apparatus, paper, metal, or machinery intended for any of the purposes aforesaid, must be destroyed.

NOTE.—The amendment is intended to clear any doubt of the application of the section to foreign bank notes or bills, and also to make the possession of the dies or apparatus used in making counterfeit foreign coin an offense thereunder.

SECTION 484. To be amended to read as follows:

Sec. 484. Larceny is the felonious stealing, taking, carrying, leading, or driving away the personal property of another; or one's own personal property where it is in the lawful possession of a pledgee.

NOTE.—The amendment makes it larceny for the general owner of personal property to deprive the pledgee of the possession thereof. This result was intended by the original Code Commissioners.

SECTION 487. To be amended to read as follows:

Sec. 487. Grand larceny is larceny committed in either of the following cases:

1. When the property taken is of a value exceeding fifty dollars;
2. When the property is taken from the person of another, or his immediate presence;
- * 3. When the property taken is a horse, mare, gelding, cow, steer, bull, calf, mule, jack, or jenny.

NOTE.—The amendment consists in the addition of the words, "or his immediate presence," to subdivision two, and is designed to avoid the questions often arising when the facts of a case make it doubtful whether the property was taken from the person of another, although clearly from his immediate presence.

SECTION 496. To be amended to read as follows:

Sec. 496. Every person who, for his own gain, or to prevent the owner from again possessing his property, buys or receives any personal property, knowing the same to have been stolen, is punishable by imprisonment in the state prison not exceeding five years, or in the county jail not exceeding six months; and it shall be presumptive evidence that such property was stolen, if the same consists of jewelry, silver or plated ware, or articles of personal ornament, if purchased or received from a person under the age of eighteen, unless said property is sold by said minor at a fixed place of business, carried on by said minor or his employer.

NOTE.—The amendment omits "or by both," applying to imprisonment in the state prison or county jail.

SECTION 502. To be repealed.

NOTE.—This section, making the provisions of Sections 339, 341, and 342 applicable to junk-dealers, is rendered unnecessary by the amendments to those sections already proposed.

SECTION 502½. To be renumbered 502.

SECTION 515. A new section to be added to Chapter VI, Part I, Title XIII, to read as follows:

Embezzlement by partner or joint owner.

Sec. 515. Every person who, being a member of a co-partnership, or being one of two, or more, beneficial owners of any money, goods, effects, bills, notes, securities, or other personal property of, or belonging to, any such co-partnership, or to such joint beneficial owners, who fraudulently appropriates to his own use, or secretes with a fraudulent intent to appropriate to his own use, any personal property belonging to such co-partnership, or in which he is one of two or more joint owners, which has come into his care or control, is guilty of embezzlement.

NOTE.—This amendment is the English statute and the New York law on the subject.

SECTION 532. To be amended to read as follows:

Sec. 532. Every person who, knowingly and designedly, by false or fraudulent representation or pretenses, defrauds any other person of money or property, real or personal, or who causes or procures others to report falsely of his wealth or mercantile character, and by thus imposing upon any person obtains credit, and thereby fraudulently gets into possession of money or property, real or personal, is punishable as follows: If the value of the property exceeds fifty dollars, by imprisonment in the state prison for not less than one, nor more than ten, years; if the value of the property does not exceed fifty dollars, by a fine not exceeding five hundred dollars, or by imprisonment in the county jail not exceeding six months, or by both.

NOTE.—This amendment is suggested by the decision in *People vs. Cummings*, California decisions, October 14, 1896, where it was held that the section does not apply to obtaining real property by false pretenses.

SECTION 533. A new section to be added to read as follows:

Obtaining labor under false pretenses.

Sec. 533. Every person who, knowingly and designedly, by false or fraudulent representation or pretenses, or by causing or procuring others to report falsely of his wealth or mercantile character, obtains or procures any other person to perform labor or services for him and thereafter fails to pay the said other person for the labor or services so performed, is punishable by imprisonment in the county jail not exceeding six months, or by a fine not exceeding twice the agreed price of the labor or services so obtained, or by both.

The present Section 533 to be renumbered 534; the present Section 534 to be renumbered 535; the present Section 535 to be renumbered

536 of Chapter VIII, Part I, Title XIII, and the remaining sections of said Chapter VIII, of Part I, Title XIII, to read as follows:

SECTION 537. A new section to be added to read as follows:

False statement concerning prices of consignment—Misdemeanor.

Sec. 537. Every commission merchant, broker, agent, factor, or consignee, who shall willfully and corruptly make, or cause to be made, to the principal or consignor of such commission merchant, agent, broker, factor, or consignee, a false statement concerning the price obtained for, or the quality or quantity of, any property consigned or intrusted to such commission merchant, agent, broker, factor, or consignee, for sale, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five hundred dollars, or imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment.

SECTION 538. A new section to be added to read as follows:

Removing certain property with intent to defraud mortgagee—Larceny.

Sec. 538. Every person who, after mortgaging any of the property mentioned in section twenty-nine hundred and fifty-five of the Civil Code, excepting locomotives, engines, rolling-stock of a railroad, steam-boat machinery in actual use, and vessels, during the existence of such mortgage, with the intent to defraud the mortgagee, his representatives or assigns, transfers, sells, takes, drives, or carries away, or otherwise disposes of, or permits the transferring, selling, taking, driving, or carrying away, or otherwise disposing of, such mortgaged property, or any part thereof, from the county where it was situated, at the time it was mortgaged, without the written consent of the mortgagee, is guilty of larceny, and shall be punished accordingly.

SECTION 539. A new section to be added to read as follows:

Further incumbrance of certain property—Larceny.

Sec. 539. Every person who, after mortgaging any of the property mentioned in section twenty-nine hundred and fifty-five of the Civil Code, excepting locomotives, engines, rolling-stock of a railroad, steam-boat machinery in actual use, and vessels, during the existence of such mortgage, sells, transfers, or in any manner further incumbers, the said mortgaged property, or any part thereof, or causes the same to be sold, transferred, or further incumbered, is guilty of larceny, and shall be punished accordingly; unless at or before the time of making such sale, transfer, or incumbrance, such mortgagor shall inform the person

to whom such sale, transfer, or incumbrance may be made, of the existence of the prior mortgage, and shall inform the prior mortgagee of the intended sale, transfer, or incumbrance, in writing, by giving the name and place of residence of the party to whom the sale, transfer, or incumbrance is to be made.

SECTION 540. A new section to be added to read as follows:

Misrepresentation of newspaper circulation—Misdemeanor.

Sec. 540. Every proprietor or publisher of any newspaper or periodical, who shall willfully and knowingly misrepresent the circulation of such newspaper or periodical for the purpose of securing advertising or other patronage, is guilty of a misdemeanor.

SECTION 541. A new section to be added to read as follows:

Defrauding proprietors of hotels, inns, etc.

Sec. 541. Any person who obtains any food or accommodation at an inn, or boarding-house, without paying therefor, with intent to defraud the proprietor or manager thereof, or who obtains credit at an inn or boarding-house by the use of any false pretense, or who, after obtaining credit or accommodation at any inn or boarding-house, absconds or surreptitiously removes his baggage therefrom, without paying for his food or accommodation, is guilty of a misdemeanor.

SECTION 542. A new section to be added to read as follows:

Fraudulent registration of thoroughbred cattle.

Sec. 542. Every person who shall, by any false or fraudulent pretense, obtain from any club, association, society, or company organized for the purpose of improving the breed of cattle, horses, sheep, swine, or other domestic animals, a certificate of registration of any animal in the herd register, or any other register, of any such club, association, society, or company, or a transfer of any such registration; and any person who shall, for a legal consideration, give a false pedigree of any animal, with intent to mislead, shall be guilty of a misdemeanor.

SECTION 543. A new section to be added to read as follows:

Advertising false pedigree of animals.

Sec. 543. Every person willfully advertising any of such animals for purposes of copulation, or profit, as having a pedigree other than the true pedigree of such animal, is guilty of a misdemeanor.

NOTE.—The changes proposed in this chapter consist of the orderly arrangement of its provisions and renumbering where necessary. There are two sections num-

bered 538. A section, No. 537, relating to defrauding hotel-keepers, was repealed by an amendment of that section when there were two sections of that number. The section thus repealed is the proposed new Section 540.

Section 537½, which makes the penalty of false advertising as to pedigree of animals the forfeiture of all right to collect pay for certain services of said animals, has been changed to make the same a misdemeanor, and the section renumbered 543.

SECTION 539 of Chapter IX, Part I, Title XIII, to be Section 544 of said chapter.

SECTION 540 to be Section 545 of said chapter, and Section 541 of said chapter to be Section 546.

SECTION 544 of Chapter X, Part I, Title XIII, to be Section 547 of that chapter.

SECTION 545 of said chapter to be Section 548 thereof.

SECTION 548 of Chapter XI, Part I, Title XIII, to be Section 549 of said chapter, and Section 549 of said chapter to be Section 550 thereof.

SECTION 563. To be amended to read as follows:

Sec. 563. Every director, officer, or agent of any corporation or joint-stock association, who knowingly receives or possesses himself of any property of such corporation or association, otherwise than in payment of a just demand, and who, with intent to defraud, omits to make, or cause or direct to be made, a full and true entry thereof in the books or accounts of such corporation or association, and every director, officer, agent, or member of any corporation or joint-stock association, who, with intent to defraud, destroys, alters, mutilates, or falsifies any of the books, papers, writings, or securities belonging to such corporation or association, or makes, or concurs in making, any false entries, or omits, or concurs in omitting, to make any material entry, in any book of accounts, or other record or document kept by such corporation or association, is punishable by imprisonment in the state prison not less than three, nor more than ten, years, or by a fine not exceeding five hundred dollars, or by both such fine and imprisonment.

SECTION 591. To be amended to read as follows:

Sec. 591. Every person who unlawfully and willfully cuts, removes, injures, or obstructs any line, wire, or conduit, or apparatus connected therewith, belonging to and used by any person or corporation engaged in conducting and carrying on a telegraph or telephone business, is guilty of a misdemeanor.

SECTION 599. A new section to be added to read as follows:

Leaving open inclosures passed through, and tearing down fences for passage—Misdemeanor.

Sec. 599. Every person who passes through an inclosure of another, and leaves the same open, is guilty of a misdemeanor, and is punishable by a fine of not less than twenty, nor more than fifty, dollars; and every person who willfully and maliciously tears down fences to make a passage through an inclosure of another, is guilty of a misdemeanor, and is punishable by a fine of not less than fifty, nor more than five hundred, dollars. All fines collected under the provisions of this section shall be paid into the county school fund of the county where the offense is committed.

NOTE.—This section contains the provisions of the Act of March 16, 1872, upon the subjects therein mentioned.

SECTION 602. To be amended to read as follows:

Sec. 602. Every person who willfully commits any trespass by either:

1. Cutting down, destroying, or injuring any kind of wood or timber standing or growing upon the lands of another; or,
2. Carrying away any kind of wood or timber lying on such lands; or,
3. Maliciously injuring or severing from the freehold of another anything attached thereto, or the produce thereof; or,
4. Digging, taking, or carrying away from any lot situated within the limits of any incorporated city, without the license of the owner or legal occupant thereof, any earth, soil, or stone; or,
5. Digging, taking, or carrying away from any land in any of the cities of the State, laid down on the map or plan of such city, or otherwise recognized or established, as a street, alley, avenue, or park, without the license of the proper authorities, any earth, soil, or stone; or,
6. Putting up, affixing, fastening, printing, or painting, upon any property belonging to the State, or to any city, county, town, or village, or dedicated to the public, or upon any property of any person, without license from the owner, any notice, advertisement, or designation of, or any name for, any commodity, whether for sale or otherwise, or any picture sign, sign, or device intended to call attention thereto; or,
7. Entering upon any lands owned by any other person or persons, whereon oyster or other shell-fish are planted or growing; or injuring, gathering, or carrying away any oysters or other shell-fish planted, growing, or being on any such lands, whether covered by water or not, without the license of the owner or legal occupant thereof; or destroying or removing, or causing to be removed or destroyed, any stakes, marks, fences, or signs intended to designate the boundaries and limits of any such lands; or,

8. Landing, or entering upon any land or lands owned by another person or persons, on the seashore, or on the borders of any lake, river, or other navigable water, for the purpose of hunting, fishing, or shooting thereon, without license or the permission of the owner or legal occupant thereof, or removing or destroying, or causing to be removed or destroyed, any notice or notices prohibiting such landing, hunting, fishing, or shooting—is guilty of a misdemeanor.

SECTION 604. A new section to be added to read as follows:

Injuring certain trees—Misdemeanor.

Sec. 604. Every person who shall willfully cut down, or strip of its bark, any tree "over sixteen feet in diameter," in the grove of big trees situated in the counties of Fresno, Tulare, and Kern, or shall destroy any of said trees by fire, is guilty of a misdemeanor, and is punishable by a fine of not less than fifty, nor more than three hundred, dollars, or by imprisonment in the county jail for not less than twenty-five, nor more than one hundred and fifty, days, or by both; and upon the arrest and conviction of any person or persons guilty of any of the acts hereinbefore in this section mentioned, the party informing shall be entitled to one half of any of the fines imposed and collected.

NOTE.—This section contains the provisions of "An Act to protect the groves of big trees," etc., approved March 13, 1874.

The present Section 604 to be numbered 605; the present Section 605 to be numbered 606; the present Section 606 to be numbered 607; the present Section 607 to be numbered 608; the present Section 608 to be numbered 609.

SECTION 610. A new section to be added to read as follows:

Malicious injury to saw-logs—Felony.

Sec. 610. Every person who maliciously drives into or places within any saw-log, shingle-bolt, or other wood, any iron, steel, or other substance sufficiently hard to injure saws, knowing that the said saw-log, shingle-bolt, or other wood is intended by the owner thereof to be manufactured into any kind of lumber, is guilty of a felony, and is punishable by imprisonment in the state prison for not less than one, nor more than five, years.

NOTE.—This section contains the provisions of "An Act to protect lumber manufacturers," approved February 9, 1876.

The present Section 609 to be numbered 611; the present Section 610 to be numbered 612; the present Section 611 to be numbered 613; the present Section 612 to be numbered 614; the present Section 613 to be numbered 615; the present Section 614 to be numbered 616.

SECTION 617. A new section to be added to read as follows:

Damaging buoys and beacons.

Sec. 617. Every person who willfully removes, damages, or destroys any buoy or beacon, or any part thereof, placed in the waters of California by authority of the United States Lighthouse Board, or who cuts down, removes, or destroys any beacon or beacons erected on any land in this State, by the authority aforesaid, is guilty of a misdemeanor, and is punishable by a fine not exceeding five hundred dollars, or by imprisonment not exceeding six months; and one third of any fines imposed and collected under this section shall be paid to the party informing, and two thirds to the lighthouse board, to be used in repairing said buoys and beacons.

NOTE.—This section is Section 1 of "An Act for the protection of buoys and beacons," approved March 26, 1874. The second section thereof, relating to liens on vessels, is placed in the Political Code.

The present Section 615 to be numbered 618; the present Section 616 to be numbered 619; the present Section 617 to be numbered 620; the present Section 618 to be numbered 621; the present Section 619 to be numbered 622; the present Section 620 to be numbered 623; the present Section 621 to be numbered 624; the present Section 622 to be numbered 625; the present Section 623 to be numbered 626; the present Section 624 to be numbered 627; the present Section 625 to be numbered 628 of Part I, Title XIV.

SECTION 626 in Chap. 15, Section 626, 626*a*, 626*b*, 626*c*, 626*d*, 626*e*, 626*f*, 626*g*, 626*h*, 626*i*, Section 627 and Section 627*a*, 627*b*, 627*c*, 627*d*, Section 628 and Section 628*a*, Section 632, Section 632*a*, Section 632*b*, Section 633, Section 634, Section 635, and Section 636, to be repealed.

SECTION 627. A new section to be added to Chapter I, Part I, Title XV, to read as follows:

Destruction and sale of game—when prohibited.

Sec. 627. Every person who, in the State of California, between the fifteenth day of February and the fifteenth day of August, of each year, shall hunt, pursue, take, kill, or destroy, or have in his possession, whether taken or killed in this State, or shipped into the State from any other State, Territory, or foreign country, except for the purpose of propagation, any mountain quail, or grouse, without having obtained a permit, in writing, from the game warden of the county wherein said birds are to be caught; every person who, in the State of California, between the fifteenth day of February and the first day of July, in each

year, shall hunt, pursue, take, kill, or destroy, or have in his possession, any dove or doves; every person who, in the State of California, shall hunt, pursue, take, kill, or destroy, or have in his possession, any male deer, between the fifteenth day of October and the fifteenth day of July of the following year; every person who, in the State of California, shall, at any time, hunt, pursue, take, kill, or destroy, or have in his possession, any spotted fawn, or an antelope, elk, mountain sheep, or female deer; every person who, in the State of California, shall buy, sell, or offer for sale, the hide or meat of any female deer, elk, antelope, or mountain sheep, whether taken or killed in the State of California, or shipped into the State from any other State or Territory; every person who, in the State of California, shall buy, sell, offer, or expose for sale, transport, or carry, or have in his possession, the skin, hide, or pelt of any deer from which the evidence of sex has been removed; every person who, in the State of California, shall buy, sell, offer, or expose for sale, the hide or meat of any female deer, elk, antelope, or mountain sheep, whether taken or killed in the State of California, or shipped into this State from any other State or Territory (except Alaska), or a foreign country; every person who, in the State of California, before the first day of March, eighteen hundred and ninety-nine, shall hunt, pursue, take, kill, or destroy, or have in his possession, except for the purpose of propagation, any pheasant; every cold-storage company, person keeping a cold-storage warehouse, tavern or hotel keeper, restaurant or eating-house keeper, marketman, or other person, who shall buy, sell, expose or offer for sale, or give away, or have in his possession, in this State, any quail, bob-white, partridge, pheasant, grouse, dove, wild duck, male deer, or any portion thereof, during the time it shall be unlawful to kill such birds, or male deer, whether taken or killed in the State of California, or shipped into the State from any other State, Territory, or foreign country; every person who, in the State of California, shall take, gather, or destroy the eggs of any quail, bob-white, partridge, pheasant, grouse, dove, or robin, or any kind of wild duck; every person who, for the purpose of shooting any kind of wild game, conceals himself behind any living animal; every person who shall use a shotgun of a larger caliber than that commonly known and designated as number ten gauge, for the purpose of killing any quail, or any species of wild duck; every person who, upon any inclosed or cultivated grounds, which are private property, and where signs are displayed forbidding such shooting, except salt-water marsh land, shall shoot any quail, bob-white, pheasant, partridge, grouse, dove, deer, or wild duck, without permission first obtained from the owner or person in possession of such grounds, or who shall maliciously tear down, or mutilate or destroy any sign, signboard, or other notice forbidding shooting on private property; every person who, in the State of Califor-

nia, shall at any time hunt, shoot, shoot at, take, kill, or destroy, buy, sell, give away, or have in his possession, except for the purpose of propagation, or for educational or scientific purposes, any English skylark, canary, California oriole, humming-bird, thrush, or mocking-bird, or any part of the skin, skins, or plumage of any of said birds, or who shall rob the nests, or take or destroy the eggs, of any of said birds—is guilty of a misdemeanor, and is punishable by a fine of not less than twenty dollars, or by imprisonment in the county jail of the county in which the conviction shall be had not less than ten days, or by both; and all the fines imposed and collected for any violation of any of the provisions of this section, shall be paid into the general fund of the county in which the conviction is had.

SECTION 628. A new section to be added to read as follows:

Regulating catching of certain fish.

Sec. 628. Every person who takes or catches, buys, sells, or has in his possession, any striped bass of less than three pounds in weight; every person who, at any time, buys, sells, offers or exposes for sale, or has in his possession, any sturgeon less than three feet in length; every person who, at any time between the first day of April and the first day of September, of each year, takes or catches, buys, sells, or has in his possession, any fresh sturgeon, whether such sturgeon is caught outside or within this State; every person who, between the first day of January and the first day of July, takes or catches, buys, sells, or has in his possession, any black bass; every person who, at any time, takes, catches, or kills, any black bass, except with hook and line; every person who shall take, catch, or kill, or sell, expose or offer for sale, or has in his possession, any lobster or crawfish, between the fifteenth day of May and the fifteenth day of July, of each year; every person who shall, at any time, buy, sell, barter, exchange, offer or expose for sale, or have in his possession, any lobster or crawfish of less than nine and one half inches in length, measured from one extremity to the other, exclusive of legs or feelers, or less than one pound in weight, whether such lobster or crawfish is caught outside or within this State; every person who takes, catches, or kills, or exposes for sale, or has in his possession, any speckled trout, brook or salmon trout, or any variety of trout, between the first day of November and the first day of April in the following year, except steel-head trout when taken with rod and line in tide-water; every person who buys, sells, or offers or exposes for sale, any steel-head trout (*Salmo gairdneri*), between the first day of December and the first day of February of the following year; every person who buys or sells, or offers or exposes for sale, within this State, any kind of trout less than six inches in length; every person who, between the thirty-first day of August and the first day of November, of each year,

takes or catches, buys, sells, offers, or exposes for sale, or has in his possession, any fresh salmon; every person who, by seine or other means, shall catch the young fish of any species and shall not return the same to the water immediately, and alive, or who shall sell, or offer for sale, any such fish, fresh or dried; every person who, in the State of California, at any time, takes or catches any trout, except with hook and line; every person who shall place, or cause to be placed, in any of the waters of this State, dynamite, gunpowder, or other explosive compound, for the purpose of killing or taking fish, or who shall at any time take, procure, kill, or destroy, any fish of any kind by means of explosives; every person who shall, at any time, except with hook and line, take or catch fish of any kind, from any river or stream within the State of California, upon which a United States fish hatchery is in operation; every person who shall set or draw, or assist in setting or drawing, any net or seine for the purpose of taking or catching salmon, shad, or striped bass, in any of the public waters of this State, at any time between sunrise of each Saturday and sunset of the following Sunday; every person who shall, for the purpose of catching shad, salmon, or striped bass, in any of the public waters of this State, fish with, or use any, seine, net, drag-net, or paranzella, the meshes of which are, when drawn closely together and measured inside the knot, less than seven and one half inches in length; every person who places, or allows to pass into any of the waters of this State, any lime, gas, tar, cocculus indicus, sawdust, shavings, slabs, edgings, mill or factory refuse, or any substance deleterious to fish; every person who shall catch, take, or carry away any trout or other fish, from any stream, pond, or reservoir, controlled by the State Board of Fish Commissioners, or belonging to any person or corporation, without the consent of the owner thereof, which stream, pond, or reservoir has been stocked with fish by hatching therein eggs or spawn, or by placing the same therein; every person who shall set, use, or continue, or shall assist in setting, using, or continuing, any pond, weir, set-net, trap, or any other fixed or permanent contrivance for catching fish in the waters of this State; and every net shall be considered a set-net when fastened in any way to a fixed or stationary object; every person who shall cast, extend, or set any seine, or net of any kind, for the catching of fish in any river, stream, or slough, of this State, which shall extend more than one-third across the width of said river, stream, or slough, at the time and place of such fishing; every person who shall cast, extend, set, use, or continue, or who shall assist in casting, extending, using, or continuing, "Chinese shrimp or bag net," or net of similar character, for the catching of fish in the waters of this State; every person who shall cast, extend, set, use, or continue, or have in his possession, or who shall assist in casting, extending, using, or continuing, "Chinese

sturgeon lines," or lines of a similar character—is guilty of a misdemeanor, and is punishable by a fine not less than one hundred dollars, or by imprisonment in the county jail in the county in which the conviction shall be had, not less than fifty days, or by both such fine and imprisonment; *provided*, that nothing in this section shall prohibit the United States Fish Commissioners and the Fish Commissioners of this State from taking, at all times, such fish as they deem necessary for the purpose of artificial hatching.

SECTION 631. To be amended to read as follows:

Sec. 631. Every person who shall, at any time, net or pound, cage or trap, any quail, partridge, or grouse; and every person who shall sell, transport, or give away, or offer or expose for sale, or have in his possession, any quail, partridge, or grouse, that has been snared, captured, or taken by means of any net or pound, cage or trap, whether taken in the State of California, or shipped into the State from any other State, Territory, or foreign country, is guilty of a misdemeanor; *provided*, that the same may be taken for the purpose of propagation, written permission having been first obtained from the game warden of the county wherein said birds are to be taken.

NOTE.—The amendment to this section omits the provision which makes proof of possession *prima facie* evidence of guilt in certain cases, which provision is unconstitutional.

The present Section 637 to be numbered 632 of Part I, Title XV.

SECTION 633. A new section to be added to Part I, Title XV, to read as follows:

Killing certain seagulls—Misdemeanor.

Sec. 633. Every person who willfully kills or destroys any of that species of sea-birds known as gulls, within five miles of the town of Santa Monica, Los Angeles County, is guilty of a misdemeanor.

NOTE.—The foregoing amendments to the sections upon the fish and game laws incorporate in a few sections most of the provisions now contained in the numerous sections on the subject in this Code, and also the suggestions made to us by the Fish Commission. The principal change made is that the close season and the time when it is unlawful to sell game are coincident in the proposed amendments.

SECTION 637. A new section to be added to Chapter II, Title XV, Part I, to read as follows:

Issuing fire insurance policies not of standard form a misdemeanor.

Sec. 637. Every insurance company or person who makes, issues, delivers, or offers to deliver, any policy of fire insurance, on property in this State, on or after September first, eighteen hundred and ninety-seven, which policy does not conform to the "California Standard Policy," shall be guilty of a misdemeanor.

SECTION 638. To be amended to read as follows:

Neglect or postponement, out of regular order, of telegraphic message.

Sec. 638. Every agent, operator, or employé of any telegraph or telephone office, who willfully refuses or neglects to send any message received at such office for transmission, or willfully postpones the same out of its order, or willfully refuses or neglects to deliver any message received by telegraph or telephone; and every agent, operator, or employé of any telegraph or telephone company, who willfully refuses or neglects to transmit, or to allow to be transmitted, any telegraph or telephone message, or willfully postpones the same out of its order, is guilty of a misdemeanor. Nothing herein contained shall be construed to require any message to be received, transmitted, delivered, or permitted to be transmitted, unless the charges thereon have been paid or tendered, nor to require the transmission, receiving, or delivery of any message counseling, aiding, abetting, or encouraging treason against the government of the United States, or of this State, or other resistance to lawful authority, or any message calculated to further any fraudulent plan or purpose, or to instigate or encourage the perpetration of any unlawful act, or to facilitate the escape of any criminal or person accused of crime.

SECTION 639. To be amended to read as follows:

Agent, operator, or employé using information from messages.

Sec. 639. Every agent, operator, or employé of any telegraph or telephone office, who, in any way, uses or appropriates any information derived by him from any private message passing through his hands, or along the lines in such office, and addressed to any other person, or in any other manner acquired by him by reason of his trust as such agent, operator, or employé, or trades or speculates upon any such information so obtained, or in any manner turns, or attempts to turn, the same to his own account, profit, or advantage, is punishable by imprisonment in the state prison not exceeding five years, or by imprisonment in the county jail not exceeding one year, or by a fine not exceeding five thousand dollars, or by both such fine and imprisonment in the county jail.

SECTION 640. A new section to be added to read as follows:

Clandestinely learning the contents of message.

Sec. 640. Every person who, by means of any machine, instrument, or contrivance, or in any other manner, willfully and fraudulently reads, or attempts to read, any message, or to learn the contents thereof, while the same is being sent over any telegraph or telephone line, or willfully and fraudulently, or clandestinely, learns, or attempts to learn, the contents or meaning of any message, while the same is in any telegraph or telephone office, or is being received thereat, or sent therefrom, or

who uses, or attempts to use, or communicates to others, any information so obtained, is punishable as provided in section six hundred and thirty-nine of this Code.

SECTION 641. To be amended to read as follows:

Bribing operator.

Sec. 641. Every person who, by the payment or promise of any bribe, inducement, or reward, procures, or attempts to procure, any telegraph or telephone agent, operator, or employé to disclose any private message, or the contents, purport, substance, or meaning thereof, or offers to any such agent, operator, or employé any bribe, compensation, or reward, for the disclosure of any private information received by him by reason of his trust as such agent, operator, or employé, or uses, or attempts to use, any such information so obtained, is punishable as provided in section six hundred and thirty-nine of this Code.

SECTION 654 of Title XVI, Part I, to be Section 655 of that title.

SECTIONS 655 and 656 to be consolidated and numbered 656, to read as follows:

Effect of foreign law and conviction or acquittal thereunder.

Sec. 656. An act or omission declared punishable by this Code is not less so because it is also punishable under the laws of another State, government, or country, unless the contrary is expressly declared. Whenever on the trial of an accused person it appears that, upon a criminal prosecution under the laws of another State, government, or country, founded upon the act or omission in respect to which he is on trial, he has been acquitted or convicted, it is a sufficient defense.

NOTE.—There are two sections numbered 654, and the consolidation, as above suggested, of Sections 655 and 656 into one section, to be numbered 656, permits the number 655 to be given to the second of the sections 654.

SECTION 680. A new section to be added to read as follows:

Absentee causing crime to be committed within this State.

Sec. 680. Every person who, being out of this State, causes, aids, advises, or encourages any person to commit a crime within this State, and is afterwards found within this State, is punishable in the same manner as if he had been within this State when he caused, aided, advised, or encouraged the commission of such crime.

SECTION 686. To be amended to read as follows:

Sec. 686. In a criminal action the defendant is entitled:

1. To a speedy and public trial;
2. To be allowed counsel as in civil actions, or to appear and defend in person and with counsel;

3. To produce witnesses on his behalf, and to be confronted with the witnesses against him, in the presence of the court, except that where the charge has been preliminarily examined before a committing magistrate, and the testimony taken down by question and answer in the presence of the defendant, who has, either in person or by counsel, cross-examined, or had an opportunity to cross-examine, the witness; or where the testimony of a witness on the part of the people, who is unable to give security for his appearance, has been taken conditionally in the like manner in the presence of the defendant, who has, either in person or by counsel, cross-examined, or had an opportunity to cross-examine, the witness, the deposition of such witness may be read, upon its being satisfactorily shown to the court that he is dead or insane, or cannot with due diligence be found within the State; or where the testimony of a witness has been given at a former trial, the transcript of the shorthand reporter's notes, made and certified under oath as a full, true, and correct transcription of such evidence, by the shorthand reporter who took the notes of such testimony of such witness at a former trial, may be read and received in evidence, upon it being satisfactorily shown to the court that the witness is either dead or insane, or cannot with due diligence be found within the State.

NOTE.—This amendment allows a certified transcription of a shorthand reporter's notes of the evidence of the witness given at a former trial to be received in evidence, when it is satisfactorily shown to the court that such witness is dead, insane, or cannot with due diligence be found within the State.

SECTION 689. To be amended to read as follows:

Sec. 689. No person can be convicted of a public offense unless by verdict of a jury, accepted and recorded by the court, or upon a plea of guilty, or upon judgment against him upon a demurrer in the case mentioned in section ten hundred and eleven, or upon a judgment of the court, a jury having been waived in a criminal case not amounting to a felony; or upon the judgment of a court in a criminal case, where the offense charged is the violation of a municipal ordinance, as provided in section ten hundred and forty-two.

NOTE.—The effect of the amendment is to take away the right to trial by jury for the violation of municipal ordinances.

SECTION 707. To be amended to read as follows:

Sec. 707. If the undertaking required by the last section is given, the party informed of must be discharged. If he does not give it, the magistrate must commit him to prison, specifying in the warrant the requirement to give security, the amount thereof, the omission to give the same, and that he be held until he give such undertaking, not exceeding six months.

SECTION 708. To be amended to read as follows:

Sec. 708. If the person complained of is committed for not giving the undertaking required, he may be discharged by any magistrate upon giving the same, and he may be discharged at any time without giving the same, upon good cause shown therefor.

SECTION 758. To be amended to read as follows:

Sec. 758. An accusation in writing against any officer not mentioned in section seven hundred and thirty-seven, of this Code, and against any district, county, township, or municipal officer for willful or corrupt misconduct in office, may be presented by the grand jury of the county for or in which the officer accused is elected, appointed, or performs his duties.

NOTE.—The object of the amendment is to render all officers, other than those named in Section 737 as liable to impeachment, subject to trial for misconduct in office.

SECTION 770. To be amended to read as follows:

Sec. 770. From a judgment of removal an appeal may be taken to the Supreme Court, in the same manner as from a judgment in a civil action; but until such judgment is reversed, the defendant is suspended from office. Pending the appeal the office must be filled as in case of a vacancy, but the salary attached to said office shall not be payable until after the final determination of the case.

NOTE.—The object of the amendment is to postpone the payment of the salary until the determination of the case on appeal, and is in accordance with the decision in *Ward vs. Marshall*, 96 Cal. 155.

SECTION 772. To be amended to read as follows:

Sec. 772. When an accusation in writing, verified by the oath of any person, is presented to a Superior Court, alleging that any officer within the jurisdiction of the court has been guilty of knowingly and corruptly charging and collecting illegal fees for services rendered, or to be rendered, in his office, or has refused or neglected to perform the official duties pertaining to his office, the court must cite the party charged to appear before the court at a time not more than ten, nor less than five, days from the time the accusation was presented, and on that day, or some other subsequent day, not more than twenty days from that on which the accusation was presented, must proceed to hear, in a summary manner, the accusation, and evidence offered in support of the same, and the answer and evidence offered by the party accused; and if, on such hearing, it appears that the charge is sustained, the court must enter a decree that the party accused be deprived of his office, and must enter a judgment for five hundred dollars in favor of the informer, and such costs as are allowed in civil cases; if the charges made against the officer

are not sustained, a judgment for such costs as are allowed in civil cases shall be entered against the informer in favor of the accused officer.

NOTE.—The changes in the section are, that the accusation must be that the officer has been guilty of “knowingly and corruptly” charging and collecting illegal fees for services, etc., and allowing costs against the informer where the charges are not sustained.

SECTION 784. To be amended to read as follows:

Sec. 784. The jurisdiction of a criminal action:

1. For forcibly and without lawful authority seizing and confining another, or inveigling or kidnaping him, with intent, against his will, to cause him to be secretly confined or imprisoned, in this State, or to be sent out of this State, or from one place in this State to another, or to be sold as a slave, or in any way to be held to service; or,

2. For decoying, taking, or enticing away a child under the age of twelve years, with intent to detain and conceal it from its parents, guardian, or other person having the lawful charge of the child; or,

3. For inveigling, enticing, or taking away an unmarried female of previous chaste character, under the age of eighteen years, for the purpose of prostitution; or,

4. For taking away any female under the age of eighteen years from her father, mother, guardian, or other person having the legal charge of her person, without their consent, for the purpose either of concubinage or prostitution—Is in the county in which the offense is committed, or out of which the person upon whom the offense was committed may, in the commission of the offense, have been brought, or in which an act was done by the defendant in instigating, procuring, promoting, or aiding in the commission of the offense, or in abetting the parties concerned therein.

NOTE.—The proposed amendments of the section are in Subdivision 1, making the section conform to the amendment proposed to Section 207; and in Subdivisions 3 and 4, changing twenty-five years to eighteen years, in Subdivision 3, to conform to Section 266, and changing sixteen years to eighteen years in Subdivision 4 to conform to Section 267.

SECTION 785. To be amended to read as follows:

Sec. 785. When the offense, either of bigamy or incest, is committed in one county, and the defendant is apprehended in another, the jurisdiction is in either county; when the offense of incest is committed outside of this State, as provided in section two hundred and eighty-five, the jurisdiction is in any county in the State where the defendant is apprehended.

• SECTION 789. To be amended to read as follows:

Sec. 789. The jurisdiction for committing without this State any offense which, if committed within this State, would be larceny or

robbery under the laws of this State, and bringing property so obtained within this State, is in any county into or through which said property has been brought.

NOTE.—The amendment is to make the section conform more strictly to the second subdivision of Section 27, and to omit therefrom any jurisdiction in our courts of the offense of knowingly receiving stolen property out of the State, and bringing the same therein, which is given by the present section. There is no section of the Code making it a crime to knowingly receive stolen goods out of the State and bring them within the State, and it is not deemed advisable to burden our courts with the trial of criminal actions in such cases.

SECTION 796. A new section to be added to read as follows:

Jurisdiction of certain offenses committed without this State.

Sec. 796. The jurisdiction of a criminal action for, while outside this State, causing, aiding, advising, or encouraging any person to commit a crime within this State, and of a criminal action for abduction out of this State of any person contrary to the laws of the place where such act is committed, and bringing such person within the limits of this State, is in any county in this State.

SECTION 797. A new section to be added to read as follows:

Jurisdiction in criminal actions generally.

Sec. 797. When not otherwise specially provided for in this Code, the jurisdiction of criminal actions for the violation of any of the provisions of this Code, is in any county in this State.

SECTION 809. To be amended to read as follows:

Sec. 809. When a defendant has been examined and committed, as provided in section eight hundred and seventy-two of this Code, it shall be the duty of the District Attorney, within thirty days thereafter, to file in the Superior Court of the county in which the offense is triable, an information charging the defendant with such offense, or such other offense as may be disclosed by the evidence upon which the order of commitment is made. The information shall be in the name of the People of the State of California, and subscribed by the District Attorney, and shall be in form like an indictment for the same offense.

SECTION 925. To be amended to read as follows:

Sec. 925. The grand jury may, at all reasonable times, ask the advice of the court, of the judge thereof, or the District Attorney; but unless such advice is asked, the judge of the court must not be present during the sessions of the grand jury. The District Attorney of the county may at all times appear before the grand jury for the purpose of giving information or advice relative to any matter cognizable by them, and may interrogate witnesses before them whenever they or he thinks it necessary; but no other person is permitted to be present

during the sessions of the grand jury, except the members, and witnesses actually under examination, and no person must be permitted to be present during the expressions of their opinions or giving their votes upon any matter before them. The grand jury, or District Attorney, may however require, by subpoena, the attendance of any person before the grand jury as interpreter; and the interpreter may be present at the examination of witnesses before the grand jury.

Heading of Chapter V, Part II, Title VI, to be changed to "Designation, by Governor, of judge to try certain indictments."

SECTION 1034. To be amended to read as follows:

Sec. 1034. Application for removal must be made in open court, and in writing, verified by the affidavit of the defendant or of the District Attorney, as the case may be, a copy of which application must be served upon the adverse party at least one day prior to the hearing of the application. At the hearing the adverse party may serve and file such counter affidavits as he may deem advisable. Whenever the affidavit of the defendant shows that he cannot safely appear in person to make such application because popular prejudice is so great as to endanger his personal safety, and such statement is sustained by other testimony, such application may be made by his attorney, and shall be heard and determined in the absence of the defendant, notwithstanding the charge then pending against him be a felony, and he has not at the time of such application been arrested or given bail, or been arraigned, or pleaded or demurred to the indictment or information.

SECTION 1042. To be amended to read as follows:

Sec. 1042. The issues of fact must be tried by a jury, unless a trial by jury be waived, in criminal cases not amounting to a felony, by the consent of both parties expressed in open court, and entered in its minutes. In cases of misdemeanor arising from the violation of any municipal or county ordinance, where the offense constituted by such ordinance is neither against the public at large, nor within the legal or common law notion of a crime or misdemeanor, nor expressed in this Code, the trial shall be by the court without a jury. In other cases of misdemeanor, the jury may consist of twelve or any number less than twelve upon which the parties may agree in open court.

NOTE.—This amendment takes away the right to trial by jury in as many cases of minor offenses as is permissible under the Constitution. It is impracticable to mention all the cases to which it would apply, but the criterion given in the section will determine what offenses come within its terms. The definition is taken from the decision in *Ex parte Young You Ting*, 106 Cal. 296. The amendment to Section 689 has been proposed in this connection.

SECTION 1064. To be amended to read as follows:

Sec. 1064. When the panel is formed from persons whose names are not drawn as jurors, a challenge may be taken to the panel on account of any bias of the officer who summoned them, which would be a good ground of challenge to a juror. Such challenge must be made in the same form, and determined in the same manner, as if made to a juror; but if the court is satisfied by the oath of the officer, or otherwise, that his action has been fair and just to the defendant in summoning the jurors, the challenge shall be disallowed.

SECTION 1066 to be repealed.

NOTE.—This section provides that the defendant must be informed before a juror is called, that if he intends so to do, he must challenge an individual juror when the juror appears and before he is sworn.

SECTION 1076. To be amended to read as follows:

Sec. 1076. In a challenge for implied bias, one or more of the causes stated in section ten hundred and seventy-four must be alleged. In a challenge for actual bias, the cause stated in the second subdivision of section ten hundred and seventy-three must be alleged; but no person shall be disqualified as a juror by reason of having formed or expressed an opinion upon the matter or cause to be submitted to such jury, founded upon public rumor, statements in public journals concerning the testimony already given upon any examination, or any former trial of the case in the Superior Court, or common notoriety; *provided*, it appear to the court, upon his declaration, under oath or otherwise, that he can and will, notwithstanding such an opinion, act impartially and fairly upon the matters to be submitted to him. The challenge may be oral, but must be entered in the minutes of the court, or of the phonographic reporter.

NOTE.—The amendment renders a person competent to act as a juror, although he has read newspaper accounts of the testimony at an examination, or former trial of the case, provided that the court is satisfied he can give the defendant a fair trial.

SECTION 1121. To be amended to read as follows:

Sec. 1121. After a juror has been sworn to try the case, the court may dispense with his further attendance upon the court until the jury shall have been completed, but before being excused, he must be admonished by the court, that it is his duty not to converse with any one on any subject connected with the trial, or to form or express any opinion thereon, until the cause is finally submitted to the jury. The jurors sworn to try an action may, at any time before the submission of the cause to the jury, in the discretion of the court, be permitted to separate or be kept in charge of a proper officer. The officer must be

sworn to keep the jurors together until the next meeting of the court, to suffer no person to speak to them or communicate with them, nor to do so himself, on any subject connected with the trial, and to return them into court at the next meeting thereof.

NOTE.—The amendment gives the court the power to excuse a juror until the jury is complete. In some cases, many days are spent in obtaining a jury, and the attendance of those already selected during such time, is unnecessary.

SECTION 1171. To be amended to read as follows:

Sec. 1171. Except as provided in section eleven hundred and seventy-seven of the Code, when a party desires to have the exceptions taken at the trial settled in a bill of exceptions, the draft of the bill must be prepared by him and presented, upon notice of at least two days to the District Attorney, to the judge for settlement within ten days after judgment has been rendered against him, unless further time is granted by the judge, or by a justice of the Supreme Court, or within that period the draft must be delivered to the clerk of the court for the judge. When received by the clerk, he must deliver it to the judge, or transmit it to him at the earliest period practicable. When settled, the bill must be signed by the judge and filed with the clerk of the court. Unless presented to the judge for his signature within ten days after its settlement, or such further time as the judge, or a justice of the Supreme Court, shall grant, the bill of exceptions shall not be signed by the judge, and such bill and the presentation of the draft thereof by the party desiring its settlement, shall be disregarded.

NOTE.—It is proposed by the amendment to make the transcription of the shorthand notes take the place of bills of exceptions in capital cases, and this amendment, with others hereinafter proposed, is intended to carry out that scheme. The amendment also requires the drafting of the bill of exceptions as settled, within ten days thereafter.

SECTION 1177. A new section to be added to read as follows:

Record in capital cases.

Sec. 1177. In every case where the judgment is of death, the official reporter, within fifteen days after the entry thereof, shall make a full and true transcription into long hand of all the evidence, including all objections, challenges, rulings thereon, and exceptions reserved at the trial, and make affidavit before an officer authorized to administer oaths, to the fullness and correctness thereof, which affidavit must be attached to such transcription and may be in the following form:

(Title of court and cause.)

State of California, _____ }
 _____ County of _____. } ss.

_____, being first duly sworn, deposes and says: That he was the official reporter of the above-entitled court during the trial of the above-

entitled action; that as such official reporter, at the trial of said action, he took full notes in shorthand of all the evidence offered by the parties thereat, including all objections, challenges, rulings thereon, and exceptions reserved, and that the foregoing transcription contains a full and correct statement of all such matters.

Subscribed and sworn to before me, this —— day of ——, 18—.

The said transcription, with the foregoing affidavit attached thereto, shall be forthwith filed with the papers in the case. Either party may, within ten days after the receipt of written notice of the filing of the said transcription, if dissatisfied therewith, move the court, upon an affidavit specifying the particulars in which it is claimed such transcription is incorrect, for an order correcting the same. Said motion shall be heard by the court at its earliest convenience, and, if granted, the court shall make an order that the transcription be amended and corrected as in said order designated, and thereupon the clerk shall amend the said transcription by making the proper changes therein in accordance with such order. If the motion is denied, an order must be made to that effect. If, for any reason, the transcription of the official reporter's notes as herein provided is not filed, a bill of exceptions may be proposed by either party within ten days after notice that such transcription has not been filed, and thereafter such proposed bill may be settled and filed, as provided in other criminal cases where the judgment is not of death.

SECTION 1180. To be amended to read as follows:

Sec. 1180. The granting of a new trial places the parties in the same position as if no trial had been had, except where the accused was charged with the commission of more than one offense, and was acquitted on such trial as to any offense charged, a new trial shall not subject him to be tried for the offense or offenses of which he was acquitted at the former trial. All the testimony must be produced anew, except as provided in section six hundred and eighty-six, and a former verdict cannot be used or referred to either in evidence or in argument.

NOTE.—This amendment is necessary in view of the decision in *People vs. Gordon*, 99 Cal. 227, and in conformity with the amendment proposed of Section 686, which allows the testimony of certain witnesses given at a former trial to be offered in certain cases from the shorthand reporter's notes, taken at the former trial.

SECTION 1205. To be amended to read as follows:

Sec. 1205. A judgment that the defendant pay a fine, or that the defendant be imprisoned and also pay a fine, may also direct that he be imprisoned until the fine be satisfied, but the judgment must specify the extent of the imprisonment, which must not exceed one day for every two dollars of the fine, nor extend in any case beyond the term for

which the defendant might be sentenced to imprisonment for the offense of which he has been convicted.

NOTE.—The scope of the amendment is to allow the judgment to be of both fine and imprisonment, with a provision for imprisonment to satisfy the fine, if not paid. See *Ex parte Rosenheim*, 83 Cal. 388.

SECTION 1206. To be amended to read as follows:

Sec. 1206. A judgment rendered by a Superior Court that the defendant pay a fine, with or without imprisonment, constitutes a lien as to such fine, and the clerk shall docket the same, in like manner as a judgment for money rendered in a civil action.

SECTION 1207. To be amended to read as follows:

Sec. 1207. When judgment upon a conviction is rendered, the clerk must enter the same in the minutes, stating briefly the offense for which the conviction was had, and the fact of a prior conviction (if one), and must, within five days, annex together and file the following papers, which shall constitute the record of the action:

1. The indictment or information and a copy of the minutes of the plea or demurrer;
2. A copy of the minutes of the trial;
3. The charges given or refused, and the indorsements thereon; and,
4. A copy of the judgment.

Any bill of exceptions which has been duly settled and signed by the judge, and any transcription of the evidence made and verified by the official reporter, as provided in section eleven hundred and seventy-seven of this Code, shall, when filed, or if such transcription be amended as provided in said section eleven hundred and seventy-seven, then as amended, become a part of such record.

SECTION 1214. To be amended to read as follows:

Sec. 1214. If the judgment is for a fine alone, or for a fine and imprisonment, execution may be issued thereon for the recovery of such fine, as on a judgment in a civil action.

SECTION 1217. To be amended to read as follows:

Sec. 1217. When judgment of death is rendered, a warrant signed by the judge and attested by the clerk, under the seal of the court, must be drawn and delivered to the Sheriff. It must state the conviction, the judgment, and appoint a day upon which the judgment is to be executed, which must not be less than sixty, nor more than ninety, days from the time of judgment, and must direct the Sheriff, within ten days from the time of judgment, to deliver the defendant to the warden of one of the state prisons of this State for execution, such prison to be designated in the warrant. It must also contain a direction that, if the

execution be prevented from taking place at the appointed time by reason of an appeal, the judgment be executed on the third Friday of the month following the month in which the remittitur from the Supreme Court, affirming the judgment, shall be filed in the Superior Court.

SECTION 1227. To be amended to read as follows:

Sec. 1227. If, for any reason, except the taking of an appeal, or the pendency thereof, a judgment of death has not been executed, and it remains in force, the court in which the conviction is had, on the application of the District Attorney of the county in which the conviction is had, must order the defendant to be brought before it, or if he is at large, a warrant for his apprehension must be issued. Upon the defendant being brought before the court, it must inquire into the facts, and if no legal reasons exist against the execution of the judgment, must make an order that the warden of the state prison to whom the Sheriff is directed to deliver the defendant, shall execute the judgment at a specified time. The warden must execute the judgment accordingly.

SECTION 1239. To be amended to read as follows:

Sec. 1239. An appeal from a judgment must be taken within six months after its rendition, and from an order within forty days after it is made.

NOTE.—The present section allows one year for an appeal from a judgment, and sixty days from an order.

SECTION 1243. To be amended to read as follows:

Sec. 1243. An appeal to the Supreme Court, from a judgment of conviction, stays the execution of the judgment in all criminal cases.

NOTE.—By the amendment, an appeal stays the execution of a judgment in all criminal cases, without a certificate of probable cause. In practice, the Supreme Court always issues such certificate when the trial judge refuses to grant it. The expense of an application to a justice of the Supreme Court in such a case is considerable, especially when the conviction is had in a remote county of the State.

SECTION 1246. To be amended to read as follows:

Sec. 1246. Upon an appeal being taken, the clerk of the court with whom the notice of appeal is filed, must, without charge, transmit to the clerk of the appellate court fifteen printed copies (one of which shall be certified to and be the original) of the notice of appeal, of the record, of all bills of exceptions, and of the transcription of the official reporter, as provided in section eleven hundred and seventy-seven, within the times following:

1. Within twenty days after the filing of the notice of appeal, if before said notice is filed the bill of exceptions has been settled by the judge; but if not, then within twenty days from the settlement of the bill of exceptions;

2. Within twenty days after the filing of the notice of appeal, if a transcription of the evidence by the official reporter has been filed and the court has made an order correcting or refusing to correct the same, or the time within which notice of motion to correct the same may be given has expired, and no such motion is pending;

3. Otherwise, after the filing of such transcription and within twenty days after the expiration of the time within which a motion may be made to correct such transcription, unless a motion is made within the time allowed by law to correct such transcription, and then within twenty days from the date of the order disposing of such motion.

Upon receipt of such printed copies, the clerk of the appellate court must file the original and dispose of the copies as he is required to do in case of transcripts on appeal in civil cases. All the services of such clerks, as provided herein, must be without charge. The clerk of the lower court must also, within the time above specified, serve printed copies of the above-named papers, without charge, upon the defendant's attorney and upon the Attorney-General. The printing and transmitting of the above papers are a county charge.

SECTION 1258. To be amended to read as follows:

Sec. 1258. After hearing the appeal, the court must give judgment without regard to technical errors or defects, or to exceptions which do not affect the substantial rights of the parties; and it shall be presumed on appeal that technical errors, defects or exceptions, do not affect the substantial rights of the parties, unless the contrary clearly appears by the record on appeal.

SECTION 1305. To be amended to read as follows:

Sec. 1305. If, without sufficient excuse, the defendant neglects to appear for arraignment, or for trial, or judgment, or upon any other occasion when his presence in court may be lawfully required, or to surrender himself in execution of the judgment, the court must direct the fact to be entered upon its minutes, and the undertaking of bail, or the money deposited instead of bail, as the case may be, is thereupon forfeited. But if at any time within twenty days after such entry in the minutes, the defendant or his bail appear and satisfactorily excuse his neglect, the court may direct the forfeiture of the undertaking or of the deposit to be discharged upon such terms as may be just.

NOTE.—The amendment proposed is to render certain within what time the defendant or his bail may excuse his neglect in failing to appear. The present section provides that they may appear "before the final adjournment of the court." The amendments proposed to the two sections following are on account of the same phraseology contained therein.

SECTION 1306. To be amended to read as follows:

Sec. 1306. If the forfeiture is not discharged, as provided in the last section, the District Attorney may, at any time after twenty days from

the entry upon the minutes, as provided in the last section, proceed by action against the bail upon their undertaking.

SECTION 1307. To be amended to read as follows:

Sec. 1307. If, by reason of the neglect of the defendant to appear, money deposited instead of bail is forfeited, and if the forfeiture is not discharged or remitted, the clerk with whom it is deposited must immediately, upon the expiration of twenty days from the entry upon the minutes, as provided in section thirteen hundred and five, pay over the money so deposited to the County Treasurer.

SECTION 1475. To be amended to read as follows:

Sec. 1475. The writ of habeas corpus may be granted:

1. By the Supreme Court, or any justice thereof, upon petition by or on behalf of any person restrained of his liberty in this State. When so issued, it may be made returnable before the court, or any justice thereof, or before any Superior Court, or any judge thereof;

2. By the Superior Court, or a judge thereof, upon petition by or on behalf of any person restrained of his liberty, in their respective counties; but where a person is restrained of his liberty, under an order made, or a judgment rendered, by any such judge, the writ must be made returnable before such judge, unless the Supreme Court, or a justice thereof, shall otherwise direct.

SECTION 1567. To be amended to read as follows:

Sec. 1567. When it is necessary to have a person imprisoned in the state prison brought before any court, or a person imprisoned in the county jail brought before a court sitting in another county, an order for that purpose must be made by the court, and executed by the Sheriff of the county where it is made.

PROPOSED AMENDMENTS TO THE CIVIL CODE.

SECTION 8. To be repealed.

NOTE.—The provisions of this section are included in Section 7.

SECTION 9. To be amended to read as follows:

Sec. 9. All other days than those mentioned in the preceding section, are to be deemed business days for all purposes.

SECTION 35. To be amended to read as follows:

Sec. 35. In all cases other than those specified in sections thirty-six and thirty-seven, the contract of a minor, if made whilst he is under the age of eighteen years, may be disaffirmed by the minor himself, either before his majority or within a reasonable time afterwards, not exceeding three years; or, in case of his death, within that period, by his heirs or personal representatives; and if the contract be made by the minor, whilst he is over the age of eighteen years, it may be disaffirmed in like manner upon restoring the consideration to the party from whom it was received, or by paying its equivalent.

NOTE.—The amendment places a limit of three years upon *what* shall be deemed a reasonable time for disaffirmance of a minor's contract, after attaining majority.

SECTION 105. To be amended to read as follows:

Sec. 105. Willful neglect is the neglect of the husband to provide for his wife the common necessities of life, he having the ability to do so; or it is the failure to do so by reason of idleness, profligacy, or dissipation. In no case shall the fact that the wife earns her own living, affect the question of willful neglect on the part of the husband.

NOTE.—The case of *Rycraft vs. Rycraft*, 42 Cal. 444, following *Washburn vs. Washburn*, 9 Cal. 475, establishes the rule that if the wife's earnings are sufficient to provide her with the common necessities of life, no divorce can be granted her under either of the two classes of conduct constituting willful neglect under this section. The result of the rule is that a wife who voluntarily remains in idleness, throwing herself upon the charity of friends or relatives for the common necessities of life, can obtain a divorce from the husband who will not provide such necessities, while the wife who supports herself by honest labor can not legally complain.

SECTION 106. To be amended to read as follows:

Sec. 106. Habitual intemperance is that degree of intemperance from the use of intoxicating drinks, morphine, chloral, or other narcotic drugs, which disqualifies a person a great portion of the time from properly attending to business, or which would reasonably inflict a course of great mental anguish upon an innocent party.

SECTION 123. To be amended to read as follows:

Sec. 123. Condonation of a cause of divorce, shown in the answer as a recriminatory defense, is a bar to such defense, unless the condonation be revoked, as provided in section one hundred and twenty-one of this Code, or within two years after such condonation, or unless the cause of divorce against which the recrimination shall be shown shall not have accrued or become complete within two years after such condonation.

NOTE.—The amendment renders clear the rule that condonation unrevoked for two years, without the commission of acts by the condonee, during such time, amounting to a cause of divorce, completely obliterates the condoned matrimonial offense.

SECTION 144. To be repealed.

SECTION 165. To be amended to read as follows:

Sec. 165. A full and complete inventory of the separate personal property of the wife may be made out and signed by her, acknowledged or proved in the manner required by law for the acknowledgment or proof of a grant of real property by an unmarried woman, and recorded in the office of the Recorder of the county in which the parties reside; and such making and recording shall be equivalent to the immediate delivery and actual and continued change of possession of the personal property transferred, as required by section thirty-four hundred and forty of this Code, in transfers of personal property from husband to wife, where such personal property continues to be used in common by the spouses.

NOTE.—This amendment makes the recording of the inventory of the wife's separate property equivalent to the immediate delivery, and actual and continued change of possession, required by Section 3440, in transfers of personal property, when such transfer is made by the husband to the wife of property used in common by them. The amendment is desirable in view of the fact that thereunder, when personal property in the possession of the husband is given to the wife, and they continue to use the same together, the rights of creditors will be better protected than they are now. In *Morgan vs. Ball*, 81 Cal. 93, the transfer of a horse and buggy from husband to wife, accompanied with no change of possession, and no circumstance to inform the creditors of such change of possession, other than the fact that after such transfer the personal property was considered in the neighborhood as belonging to the wife, was sustained. Ordinarily, a gift of personal property by husband to wife, which they use in common, is not accompanied by any change in the possession thereof, and it is desirable to provide some means whereby intending creditors can readily determine whether such a gift has been made. The recording of the inventory will accomplish this result.

SECTION 169. To be amended to read as follows:

Sec. 169. The earnings and accumulations of the wife, and of her minor children living with her, or in her custody, while she is living separate from her husband, by agreement, or on account of any conduct of his constituting, or which, if continued, would constitute, a cause of divorce, are the separate property of the wife.

NOTE.—The present section makes the wife's earnings, when living apart from her husband without any fault of his, her separate property. At the same time, the accumulations of the husband are community property, although the wife may have deserted him. It also offers an inducement to the wife to abandon her husband, as her earnings then become her separate property.

SECTION 172. To be amended to read as follows:

Sec. 172. The husband has the management and control of the community property, with the like absolute power of disposition, other than testamentary, as he has of his separate property; except that any gift of the community property, or any part thereof, made by him with a fraudulent intent to deprive the wife of her rights therein, is void.

NOTE.—The effect of the amendment of 1891, restricting the making of gifts by the husband of community property, has been to require the joining of the wife in all deeds of the husband, where made for a valuable consideration and affecting his separate property. The amendment will obviate this necessity, and, at the same time, protect the interests of the wife.

SECTION 203. To be amended to read as follows:

Sec. 203. The abuse of parental authority is the subject of judicial cognizance in a civil action brought by the child, or by his relatives within the third degree, or by the supervisors of the county where the child resides; and when the abuse is established, the child may be freed from the dominion of the parent, and the duty of support and education enforced. In such action the court shall have power to make all such provisional orders as may be necessary to protect the interests, or insure the safety, of the child, including an order placing the child in the custody of a person other than the parent until the suit is determined.

NOTE.—By this amendment, the power of the court is made clear to take the child from the custody of the parent, pending the determination of the suit. By the amendment and that proposed to Section 1747 of the Code of Civil Procedure, all proceedings to determine the right of the parent to the custody of the child must be by action under this section. Under Section 1747 of the Code of Civil Procedure as proposed to be amended, the court has the power, in a summary manner, to appoint a guardian of the estate of a minor when deemed expedient, but not to deprive a parent of his custody.

SECTION 230. To be amended to read as follows:

Sec. 230. The father of an illegitimate child, by publicly acknowledging it as his own, receiving it as such, with the consent of his wife, if he is married, into his family, and otherwise treating it as if it were a legitimate child, thereby adopts it as such for all purposes except

succession, and such child is thereupon deemed, for all other purposes legitimate from the time of its birth. The foregoing provisions of this chapter do not apply to such an adoption.

NOTE.—The effect of this amendment is that an illegitimate child cannot take by succession from his father unless he is adopted by judicial decree, or in accordance with Section 1387 of the Civil Code.

SECTION 264. To be amended to read as follows:

Sec. 264. Every minor of the age of fourteen years and over, with the consent of the persons or officers hereinafter mentioned, may, of his own free will, bind himself, in writing, to serve as clerk, apprentice, or servant, in any profession, trade, or employment; and such binding shall be as valid and effectual as if such minor was of full age at the time of making the engagement, except as hereinafter in this title provided.

SECTION 265. To be amended to read as follows:

Sec. 265. Such consent shall be given:

1. By the father of the minor. If he be dead, or be not of legal capacity to give his consent, or if he shall have abandoned his family for one year, without making provision for their support, or if he shall have become an habitual drunkard, or vagrant; then,

2. By the mother. If the mother be dead, or be not of legal capacity to give such consent or refusal; then,

3. By the guardian of such minor. If such minor have no parent living, or none in a legal capacity to give such consent, and there be no guardian; then,

4. By a judge of the Superior Court of the county in which such minor resides; *provided*, that if the child be an illegitimate child, the consent of the mother alone shall be necessary; *provided further*, that the power of the mother to bind her child, whether legitimate or illegitimate, shall cease upon her subsequent marriage, and shall not be exercised by her or her husband at any time during her marriage, without the approval of a judge of the Superior Court of the county wherein he or she resides; and such consent shall be signified in writing, by the person entitled to give the same, by certificate at the end of, or indorsed upon, the indentures.

SECTION 266. To be amended to read as follows:

Sec. 266. If the right of consent of a mother to apprenticeship, because of the husband's incompetency, abandonment of his family, habitual drunkenness, or vagrancy, as provided in the preceding section, shall be disputed by the father, upon such dispute being brought to the attention of the Superior Court by petition of the father, it shall be the duty of the Superior Court to summarily try the question. If the court find that the mother had a right to give such consent, the

father shall pay all the costs of the proceeding; but if the court find otherwise, the indenture of apprenticeship is void.

SECTION 268. To be amended to read as follows:

Superior Court may bind in certain cases.

Sec. 268. When any minor who is poor, homeless, chargeable to the county, or an outcast, has no visible means of obtaining an honest livelihood, the Superior Court of the county where he is found shall have power to bind him as an apprentice, subject to the provisions of this title, until, if a male, he arrives at the age of twenty-one years, and if a female, she arrives at the age of eighteen years.

SECTION 269. To be amended to read as follows:

Indentures, what to contain.

Sec. 269. Indentures shall be signed, sealed, and delivered, in duplicate, in the presence of all of the parties concerned; and when made with the approbation of the Superior Court, such approbation shall be certified in writing, indorsed upon each copy of the indenture. One copy of the indenture shall be kept for the use of the minor by his parent or guardian (when consented to by them respectively), but when made with the approbation of the Superior Court, one copy shall be deposited in the safe-keeping of the clerk of said court for the use of the minor. The other copy shall be held by the master, and delivered up to the minor at the expiration of his term of service.

SECTION 271. To be amended to read as follows:

Indentures, conditions in.

Sec. 271. Every sum of money paid or agreed for, with or in relation to the binding out of any clerk, apprentice, or servant, shall be inserted in the indentures; and all considerations of clothes or money paid or allowed by the master, are the sole property of the apprentice, and the master is accountable to him for the same, and shall pay and account to the apprentice alone therefor.

SECTION 272. To be amended to read as follows:

Indentures to contain the obligations of master.

Sec. 272. The indentures shall contain the age of the apprentice, and an agreement on the part of the person to whom such child is bound that he will cause such child to be instructed to read and write, and to be taught the general rules of arithmetic, and in lieu thereof that he will send such child to school for at least three months of each year during the period of his apprenticeship; and in all indentures approved by the Superior Court for binding out an orphan, or homeless minor, as an apprentice, there shall be inserted among other covenants,

and in addition to those provided for in this title, that the master to whom such minor shall be bound shall give him requisite instructions in the different branches of his trade or calling, and at the expiration of the term of service shall give him one hundred dollars in gold coin, and suitable clothing in value not less than fifty dollars gold coin.

SECTION 273. To be amended to read as follows:

Treatment of apprentices.

Sec. 273. It shall be unlawful for any master to remove an apprentice out of this State, and it shall be the duty of the master to treat the apprentice with fairness. The Superior Court shall hear the complaints of apprentices who reside within the county, alleging undeserved or immoderate correction, insufficient allowance of food, raiment, or lodging, or alleging want of instruction in the different branches of their trade or calling, or that they are in danger of being removed out of the State, or any violation of the indenture of apprenticeship; and the court may hear and determine such cases, and make such order therein as will relieve the party in the future.

SECTION 277. A new section to be added to read as follows:

Discharge of apprentices.

Sec. 277. No indenture of apprenticeship, made in pursuance of this title, shall bind the minor after the death of the master; but the apprenticeship shall be thenceforth discharged, and the minor may be bound out anew.

SECTION 278. A new section to be added to read as follows:

Court may discharge apprentice.

Sec. 278. The Superior Court shall have power, where circumstances require it, to discharge an apprentice from his apprenticeship, and in case any money, or other thing, has been paid or contracted to be paid by either party in relation to such apprenticeship, the court shall make such order concerning the same as shall seem just and reasonable. Whenever any master of an apprentice shall wish to remove out of this State, or to quit his trade or business, he shall appear with his apprentice before the Superior Court of the proper county, and if the court be satisfied that the master has done justice to the said apprentice for the time he has had charge of the same, the court shall have power to discharge the apprentice from the service of such master.

SECTION 279. A new section to be added to read as follows:

Liability of master.

Sec. 279. Every master shall be liable to an action on the indenture for the breach of any covenant on his part therein contained; and all

damages recovered therein, after deducting the necessary charges in prosecuting the same, shall be the property of the minor, and shall be applied and appropriated to his use by the person who shall recover the same, and shall be paid to the minor upon his reaching majority; and if such action is not brought during the minority of such minor, it may be commenced in his own name at any time within two years after coming of age.

SECTION 280. A new section to be added to read as follows:

Action against apprentice for neglect.

Sec. 280. An apprentice who shall be guilty of gross misbehavior, or refusal to do his duty, or willful neglect thereof, shall render himself liable to the complaint of the master in the Superior Court of the county wherein he resides, which complaint shall set forth the circumstances of the case, and contain a prayer that the master be discharged from the indenture of apprenticeship, and for the costs of suit; and the court shall hear and determine the case, and may render judgment that the master be discharged from the indenture of apprenticeship, and for the costs of suit. An execution thereupon may be issued against the minor, and the amount thereof may be recovered in an action brought against him after he has reached his majority.

NOTE.—The provisions of the Act of April 3, 1876, are inconsistent with nearly all of the Code provisions upon the subject of "Master and Servant." Notwithstanding their virtual repeal, the Legislature, in 1880, amended the Code sections in several particulars, leaving the law on this subject in a very indefinite condition. The above amendments, commencing with Section 264, aim to incorporate all the provisions of that Act into the Code, retaining the unrepealed sections of the Code consistent therewith.

SECTION 291. To be amended to read as follows:

Sec. 291. The articles of incorporation of any railroad, wagon-road, telegraph, or telephone organization, must also state:

1. The kind of road, or telegraph, or telephone, intended to be constructed;
2. The place from and to which it is intended to be run, and all the intermediate branches;
3. The estimated length of the road, or telegraph, or telephone line;
4. That at least ten per cent of the capital stock subscribed has been paid in to the treasurer of the intended corporation.

SECTION 293. To be amended to read as follows:

Sec. 293. Each intended corporation named in section two hundred and ninety-one, before filing articles of incorporation, must have actually subscribed to its capital stock, for each mile of the contemplated work, the following amounts, to wit:

1. One thousand dollars per mile of railroad;
2. One hundred dollars per mile of telegraph or telephone lines;
3. Three hundred dollars per mile of wagon-roads.

SECTION 299. To be amended to read as follows:

Sec. 299. No corporation hereafter formed shall purchase, locate, or hold property in any county of this State (except in the county where its articles of incorporation have been filed), without filing a copy of the copy of its articles of incorporation filed in the office of the Secretary of State, duly certified by such Secretary of State, in the office of the County Clerk of the county in which such property is situated, within sixty days after such purchase or location is made. Every corporation now in existence, whether formed under the provisions of this Code or not, must, within ninety days after the passage of this section, file such certified copy of the copy of its articles of incorporation in the office of the County Clerk of every county in this State in which it holds property (except the county where the original articles of incorporation are filed); and if any corporation hereafter acquires any property in any county other than that in which it now holds property, it must, within ninety days thereafter, file with the Clerk of such county such certified copy of the copy of its articles of incorporation. The copies so filed with the several County Clerks, and certified copies thereof, shall have the same force and effect in evidence as would the originals. Any corporation failing to comply with the provisions of this section shall not maintain or defend any action or proceeding in relation to such property, its rents, issues, or profits, until such articles of incorporation, and such certified copy of its articles of incorporation, and such certified copy of the copy of its articles of incorporation, shall be filed at the places directed by the general law and this section; *provided*, that all corporations shall be liable in damages for any and all loss that may arise by the failure of such corporation to perform any of the foregoing duties within the time mentioned in this section; *and provided further*, that the said damages may be recovered in any action brought in any court of this State of competent jurisdiction, by any party or parties suffering the same.

NOTE.—The amendment obviates the necessity, under the present section, of filing a copy of the copy of the articles of incorporation with the County Clerk of the county where the original articles are filed, when the corporation desires to acquire property in that county.

SECTION 301. To be amended to read as follows:

Sec. 301. Every corporation formed under this title must, within one month after filing articles of incorporation, adopt a code of by-laws for its government, not inconsistent with the constitution and laws of this State, nor unreasonable in their practicable operation. The assent

of stockholders representing a majority of all the subscribed capital stock, or of a majority of the members, if there be no capital stock, is necessary to adopt by-laws, if they are adopted at a meeting called for that purpose; and in the event of such meeting being called, two weeks' notice of the same, by advertisement in some newspaper published in the county in which the principal place of business of the corporation is located, or, if none is published therein, then in a paper published in an adjoining county, must be given by order of the acting president. The written assent of the holders of two thirds of the stock, or of two thirds of the members, if there be no capital stock, shall be effectual to adopt a code of by-laws without a meeting for that purpose.

NOTE.—This amendment requires the by-laws to be reasonable in their practical operation, in addition to the present requirement of the Code that they shall be consistent with the constitution and laws of this State. (*People vs. Home Savings Bank*, 104 Cal. 649.)

SECTION 303. To be amended to read as follows:

Sec. 303. A corporation may, by its by-laws, where no other provision is specially made, provide for—

1. The time, place, and manner of calling and conducting its meetings;
2. The number of stockholders or members constituting a quorum;
3. The mode of voting by proxy;
4. The time of the annual election for directors, and the manner of giving notice thereof;
5. Compensation and duties of officers;
6. The number, designation, manner of election, and the tenure of office of all officers other than the directors;
7. Suitable penalties for violation of by-laws, not exceeding, in any case, one hundred dollars for any one offense;
8. The time of regular meetings of directors and the mode of calling special meetings of directors;
9. The issuance of certificates for stock prior to full payment, under such restriction and for such purposes as may be proper; and the disposition of the stock of the corporation which may be purchased by it at sales to pay delinquent assessments;
10. The newspaper in which all notices of the meetings of stockholders or board of directors, notice of which is required shall be published, which must be some newspaper published in the county where the principal place of business of the corporation is located, or if none is published therein, then in a newspaper published in an adjoining county; *provided*, that when the by-laws prescribe the newspaper in which said publication shall be made, if from any cause at the time any publication is desired to be made, the publication of such newspaper shall have ceased, the board of directors may, by an order entered

on the records of the corporation, direct the publication to be made in some other newspaper published in the county, or if none is published therein, then in an adjoining county.

NOTE.—The effect of this amendment is to gather into one section the different matters which may be ordinarily provided for in the by-laws of a corporation.

SECTIONS 317 and 318 to be incorporated into one section to be numbered 317, to read as follows:

Meeting by consent, and proceedings thereat, to be binding.

Sec. 317. When all the stockholders or members of a corporation are present at any meeting, however called or notified, and sign a written consent thereto on the record of such meeting, the acts and proceedings of such meeting are as valid as if had at a meeting regularly called and noticed. The stockholders or members of such corporation, when so assembled, may elect officers, fill all vacancies then existing, and may act upon such other business as might lawfully be presented at regular meetings.

SECTION 319. To be numbered 318.

SECTION 320. To be numbered 319.

The present two sections numbered 321 to be repealed.

SECTION 320. A new section to be added to read as follows:

Books and notice of directors and stockholders of banks.

Sec. 320. Every corporation doing a banking business in this State must keep in its office, in a place accessible to the stockholders, depositors, and creditors thereof, and for their use, a book containing a list of all stockholders in such corporation, and the number of shares of stock held by each; and every such corporation must keep posted in its office, in a conspicuous place, accessible to the public generally, a notice signed by the president or secretary, showing:

1. The names of the directors of such corporation;
2. The number and value of shares of stock held by each director.

The entries on such book and such notice shall be made and posted within twenty-four hours after any transfer of stock, and shall be conclusive evidence against each director and stockholder of the number of shares of stock held by each. The provisions of this section shall apply to all banking corporations formed or existing before twelve o'clock noon of the day on which this Code took effect, as well as to those formed after such time.

SECTION 321. A new section to be added to read as follows:

Change of principal place of business.

Sec. 321. Every corporation that has been, or may be, created under the general laws of this State, may change its principal place of business from one place to another in the same county, from one city or county to another city or county, within this State. Before such change is made, the consent, in writing, of the holders of two thirds of the capital stock, or a majority of the members, if there be no capital stock, must be obtained and filed in the office of the corporation. When such consent is obtained and filed, notice of the intended removal or change must be published at least once a week for three successive weeks in some newspaper published in the county wherein said principal place of business is situated, if there is one published therein, if not, in a newspaper of an adjoining county, giving the name of the county or city where it is situated, and that to which it is intended to remove it.

NOTE.—The amendments proposed to Section 317 and the above consist merely in consolidating Sections 317 and 318, so as to leave room in the chapter for separate numbers for the two Sections 321, passed in 1876, and a change in the second Section 321, requiring the consent of a majority of the members to the change of the principal place of business of corporations, where there is no capital stock.

SECTION 323. To be amended to read as follows:

Sec. 323. All corporations for profit must issue certificates for stock when fully paid up, signed by the president and secretary, and must issue such certificates when not fully paid up under such restriction and for such purposes as their by-laws may provide.

NOTE.—This amendment removes from the section the provision that the by-laws may provide for the issuance of certificates prior to full payment, as that provision is incorporated in Section 303 by the proposed amendment thereto.

SECTION 342. To be amended to read as follows:

Sec. 342. The person offering at such sale to pay the assessment and costs for the smallest number of shares or fraction of a share is the highest bidder, and the stock purchased must be transferred to him on the stock-books of the corporation, and a certificate issued to him thereof on payment of the assessment and costs. A certificate of any shares unsold of a certificate offered for sale shall be issued to the person whose stock has been offered for sale, and thereupon the secretary shall cancel the former certificate by proper and appropriate entries in the records of the corporation.

SECTION 349. To be amended to read as follows:

Sec. 349. On the day specified for declaring the stock delinquent, or at any time subsequent thereto, and before the sale of the delinquent stock, the board of directors may elect to waive further proceedings

under this chapter for the collection of delinquent assessments, or any part or portion thereof, and may elect to proceed by action to recover the amount of the assessment and the costs and expenses already incurred, or any part or portion thereof; but the provisions of this section shall not apply to any stock fully paid.

NOTE.—The amendment takes away the right of action upon an assessment against the stockholders whose stock is fully paid, thus restricting corporations in such case to a sale of the stock to pay any delinquent assessment.

SECTION 360. To be amended to read as follows:

Sec. 360. No corporation shall acquire or hold any more real property than may be reasonably necessary for the transaction of its business, or the construction of its works, except as otherwise specially provided. A corporation may acquire real property, as provided in title seven, part three, Code of Civil Procedure, when needed for any of the uses and purposes mentioned in said title. By unanimous consent of its members or stockholders, any corporation existing under the laws of this State may acquire and hold the lot and house in which its business is carried on, and may improve the same to any extent required for the convenient transaction of its business.

NOTE.—The amendment adds to the section the provisions of the Act of April 1, 1876, authorizing corporations to own and improve property in which their business is carried on.

SECTION 362. To be amended to read as follows:

Sec. 362. Any corporation may amend its articles of incorporation by a majority vote of its board of directors or trustees, and by a vote or written assent of the stockholders representing at least two thirds of the subscribed capital stock of such corporation, or the written assent of a majority of the members, if there be no capital stock; and a copy of the articles of incorporation as thus amended, duly certified to be correct by the president and secretary of the board of directors or trustees of such corporation, shall be filed in the office where the original articles of incorporation are required by this Code to be filed, and also in the office of the Secretary of State, and from the time of so filing such copy of the amended articles of incorporation, such corporation shall have the same powers, and it, and the stockholders thereof, shall thereafter be subject to the same liabilities, as if such amendment had been embraced in the original articles of incorporation; *provided*, that the time of the existence of such corporation shall not be by such amendment extended beyond the time fixed in the original articles of incorporation; *provided further*, that such original and amended articles of incorporation shall together contain all the matters and things required by the law under which the original articles of incorporation were executed and filed; *and provided further*, that nothing herein contained shall be construed

to cure or amend any defect existing in any original articles of incorporation heretofore filed by reason that such articles did not set forth the matters required to make the same valid at the time of filing; *and also provided*, that if the assent of two thirds of the stockholders to such amendment has not been obtained, a notice of the intention to make the amendment shall first be advertised for thirty days in some newspaper published in the town, or county, or city and county, in which the principal place of business of the corporation is located, before the filing of the proposed amendment; *and provided also*, that nothing in this section shall be construed to authorize any corporation to diminish its capital stock.

NOTE.—The present section provides that any corporation may amend “its articles of association or certificate of incorporation,” but, as a matter of law and fact, no corporation has any articles of association, and if there be such a thing as a certificate of incorporation, it is obviously something which the corporation has no power to amend. Section 289 mentions the only instrument by which a private corporation can be formed, and it is called “Articles of Incorporation.” If there is any paper which may properly be styled a certificate of incorporation it is that certificate mentioned in Section 296, which the Secretary of State is required to issue. This certificate obviously cannot be amended by the corporation, because it is not its act, and Section 362 surely did not contemplate that upon the amendment of its articles of incorporation a new and amended certificate should be issued by the Secretary of State. Again, the section provides that “a copy of the said articles of association, or certificate of incorporation, as thus amended, shall be filed in the office or offices where the original articles of incorporation are required by the Code to be filed,” but, as before intimated, the Code does not require any “articles of association,” nor any “certificate of incorporation, to be filed.” The amendment proposed will remove the above objections.

SECTION 388. To be amended to read as follows:

Franchises may be sold under execution.

Sec. 388. For the satisfaction of any judgment against a corporation, its franchise, and all the rights and privileges thereof, may be levied upon and sold under execution in the same manner and with like effect as any other property; except that such sale shall not relieve the franchise, or property held thereunder, from the liabilities of the judgment debtor contracted or incurred in the operation, use, or enjoyment of such franchise, or any of its privileges.

NOTE.—This amendment permits the sale under execution of a franchise of a corporation, restricting the effect thereof as provided in Article XII, Section 10, of the Constitution.

SECTION 392. To be amended to read as follows:

Sec. 392. A corporation may, at any time within one year after such sale, redeem the franchise by paying or tendering to the purchaser thereof the sum paid therefor, with ten per cent interest thereon; and upon such payment or tender, the franchise, and all rights and privileges thereof, revert and belong to the corporation, as if no such sale had been made.

SECTION 418. To be amended to read as follows:

Sec. 418. If any insurance corporation is under liabilities for losses to an amount equal to its capital stock, and the president or directors, after knowing the same, make any new or further insurance, all who make such insurance, or assent thereto, and their heirs, executors, and administrators, are jointly and severally liable for the amount of any loss which takes place under such insurance.

SECTION 431. A new section to be added to read as follows:

Form of fire insurance policies.

Sec. 431. On and after the first day of September, eighteen hundred and ninety-seven, no fire insurance company, corporation, or association, its officers or agents, shall make, issue, use, or deliver for use, any fire insurance policy on property in this State, other than such as shall conform, in all particulars, as to blanks, size of type, context, provisions, agreements, and conditions, with the printed form of contract or policy to be filed in the office of the Insurance Commissioner, as provided for in section six hundred and thirty-five of the Political Code, and no other or different provision, condition, agreement, or clause, shall, in any manner, be made a part of said contract or policy, or be indorsed thereon, or delivered therewith, except as follows, to wit:

1. The name of the company, its location or place of business, the date of its incorporation or organization, and the state or country under which the same is organized; the amount of paid-up capital stock, whether it is a stock or mutual company, the names of its officers, the number and date of the policy; and if it be issued through a manager or agent of the company, the words "this policy shall not be valid until countersigned by the duly authorized manager or agent of the company at —," may be printed on policies issued on property in this State;

2. Printed or written forms of description and specification or schedules of the property covered by any particular policy, and any other matter necessary to clearly express all the facts and conditions of insurance on any particular risk (which facts or conditions shall in no case be inconsistent with, or a waiver of, any of the provisions or conditions of the standard policy provided for in the Political Code), may be written upon or attached or appended to any policy issued on property in this State;

3. A company, corporation, or association, organized or incorporated under and in pursuance of the laws of this State, or elsewhere, if entitled to do business in this State, may, with the approval of the Insurance Commissioner, if the same is not already included in the standard form to be filed in the office of said commissioner, as provided for in section six hundred and thirty-five of the Political Code, print, on its policies,

any provision which it is required, by law, to insert therein, if such provision is not in conflict with the laws of this State, or of the United States, or of the provisions of the standard form provided for in the Political Code; but said provision or provisions shall be printed apart from the other provisions, agreements, or conditions of the policy, and in type not smaller than the body of the policy, and under a separate title, as follows: "Provisions required by law to be stated in this policy," and be a part of said policy;

4. There may be indorsed on the outside of any policy herein provided for, the name, with the word "agent" or "agents," and place of business of any insurance agent or agents, either by writing, printing, stamping, or otherwise;

5. Where two or more companies, each entitled to do business in this State, unite to issue a joint policy, there may be expressed in the heading of such policy the fact of the severalty of the contract; also, the proportion of premium to be paid to each company, and the proportion of liability which each company agrees to assume, and in the printed conditions of such policy the necessary change may be made from the singular to the plural number, when reference is had to the company issuing such policy;

Provided, that any policy made, issued, or delivered, not in conformity with this section, shall nevertheless be binding upon the company issuing the same, and such company shall thereafter be disqualified from doing any insurance business in this State.

NOTE.—The proposed section, taken in connection with the proposed Section 635 of the Political Code, enacts substantially the law of New York requiring all policies of fire insurance to be uniform. The desirability of such requirement is apparent when the multiplicity of forms of policies in use, and the fact that the insured seldom reads the conditions of his policy, are considered.

The effect of a uniform policy of insurance will be that, when a person once understands its provisions, he can obtain other policies with a certainty that there is nothing therein contained of which he is not aware. New York was the first State to adopt such a law, and its operation has been satisfactory.

SECTION 444. To be amended to read as follows:

Sec. 444. Life, health, and accident insurance corporations may invest their capital stock as follows:

1. In loans upon unincumbered and improved real property within the State of California, which shall be worth at the time of the investment at least forty per cent more than the sum loaned;

2. In the purchase of or loans upon interest-bearing bonds, and other securities of the United States and of the State of California;

3. In the purchase of or loans upon interest-bearing bonds of any of the other States of the Union, or of any county, or incorporated city, or city and county, or school district in the State of California;

4. In the purchase of or loans upon any stocks of corporations formed

under the laws of this State, except of mining corporations, which shall have, at the time of the investment, a value, in the City and County of San Francisco, of not less than sixty per cent of their par value, and shall be rated as first-class securities;

But no loans shall be made on any securities specified in subdivisions three and four of this section, in any amount beyond sixty per cent of the market value of the securities, nor shall any loan be made on the stock of the corporation, or notes or other obligations of its corporators.

NOTE.—The amendment allows the investment of the capital stock of life, health, and accident insurance corporations to be made in interest-bearing bonds of school districts of California.

SECTION 445. To be amended to read as follows:

Sec. 445. The corporation may, by its by-laws, limit the number of shares which may be held by any one person, and make such other provisions for the protection of the stockholders and the better security of those dealing with it as to a majority of the stockholders may seem proper, not inconsistent with the constitution and laws of the State, nor unreasonable in their practical operation.

SECTION 467. To be amended to read as follows:

Sec. 467. If at any time after the location of the line of the railroad, and the filing of the maps and profiles thereof, as provided in the preceding section, it appears that the location can be improved, the directors may, as provided in subdivision seven of section four hundred and sixty-five, alter or change the same, and cause new maps and profiles to be filed, showing such changes, in the same offices where the originals are on file, and may proceed, in the same manner as the original location was acquired, to acquire and take possession of such new line, and must sell or relinquish the lands owned by them for the original location, within five years after such change; *provided, however*, that forthwith upon such change being made, the lands acquired by the corporation under the right of eminent domain shall revert to the original owners thereof, or their successors in interest.

NOTE.—The new provision made by the amendment is that when the corporation changes the line of its road all property which was obtained by eminent domain for the portion of the road abandoned shall revert to the original owners or their successors in interest.

SECTION 472. To be amended to read as follows:

Sec. 472. Whenever the track of such railroad crosses a railroad or highway, such railroad or highway may be carried under, over, or on a level with the track, as may be most expedient; and in cases where an embankment or cutting necessitates a change in the line of such railroad or highway, the corporation may take such additional lands and material as are necessary for the construction of such road or highway on

such new line. If such other necessary lands cannot be had otherwise, they may be condemned as provided in title seven, part three, Code of Civil Procedure; and when compensation is made therefor, the same becomes the property of the corporation. In all such cases it is the duty of the corporation to restore the highway to its former condition, so as not to interfere materially with its use for the convenience of the public.

SECTION 492. To be amended to read as follows:

Sec. 492. The legislative or other body to whom is intrusted the government of the county, city and county, city, or town, under such regulations, restrictions, and limitations, and upon such terms and payment of license tax as the county, city and county, city, or town authority may provide, may grant franchises for the construction of elevated or underground railroad tracks over, across, or under the streets and public highways of any such county, city and county, city, or town, for a term not exceeding fifty years; *provided*, that before granting such franchise there shall be presented to such legislative or other body a petition signed by the owners of a majority of the landed property, other than public property, on the line of said elevated portion applied for. The provisions of this section shall apply to all railroad companies heretofore or hereafter incorporated.

NOTE.—The amendment incorporates therein the provisions of Section 493.

SECTION 493. A new section to be added to read as follows:

Non-operation of railroads—Forfeiture.

Sec. 493. From and after the completion of any railroad, or the completion of such portion thereof capable of being operated, it shall be the duty of the corporation or individual owning the same, to operate it; and upon the failure of said corporation or individual so owning said road to keep the same, or any part thereof, in full operation for the period of six months, its or his right to operate the same, in whole or in part, as the case may be, shall be forfeited; and the lands occupied for the purposes of its or his road, so far as the same shall not be operated, shall revert to the original owners, or their successors in interest. A railroad shall be deemed to be in full operation when one passenger train, or one mixed train, is run over it once each day in each direction, and a sufficient number of freight trains to accommodate the traffic on said road.

SECTION 494. A new section to be added to read as follows:

Prevention of operation—Duty of Railroad Commissioners.

Sec. 494. The preceding section shall not be construed to apply to a case where the operation of the road is prevented by the act of God, nor

to a case where the operation of said road, together with its branch or trunk lines, does not yield income sufficient to defray the expenses of maintaining and operating the same in connection with its said branch or trunk line. The Railroad Commissioners of the State of California shall have the power to examine and determine the question whether said road, together with its said branch and trunk lines, does or does not yield income sufficient to operate the same.

NOTE.—The two last preceding proposed sections contain the provisions of the Act of April 15, 1880, to compel railroad corporations and individuals owning railroads to operate their roads. (See Stats. 1880, p. 43.)

The heading of Title VII, Part IV, Division I, to be amended to read: "Telegraph and Telephone Corporations."

SECTION 536. To be amended to read as follows:

Sec. 536. Telegraph or telephone corporations, when they have acquired their franchises from counties, cities and counties, cities, and towns, as provided by law, and in conformity therewith, may construct lines of telegraph or telephone along and upon any public road or highway, along or across any of the waters or lands within this State, along, upon, or across which such franchises are so acquired, and may erect poles, posts, piers, or abutments for supporting the insulators, wires, and other necessary fixtures of their lines, in such manner and at such points as not to incommode the public use of the road or highway, or interrupt the navigation of the waters.

SECTION 537. To be amended to read as follows:

Persons liable for damages for injuring telegraph and telephone property.

Sec. 537. Any person who injures or destroys, through want of proper care, any necessary or useful fixtures of any telegraph or telephone corporation, is liable to the corporation owning the same for all damages sustained thereby. Any vessel which, by dragging its anchor or otherwise, breaks, injures, or destroys the sub-aqueous cable of a telegraph or telephone corporation, subjects its owner to the damages hereinbefore specified.

SECTION 538. To be amended to read as follows:

Damages, willful and malicious injury.

Sec. 538. Any person who willfully and maliciously does any injury to any telegraph or telephone property mentioned in the preceding section is liable to the corporation owning the same for one hundred times the amount of actual damages sustained thereby, to be recovered in any court of competent jurisdiction.

SECTION 539. To be amended to read as follows:

Conditions on which damage to sub-aqueous cable may be recovered.

Sec. 539. No telegraph or telephone corporation can recover damages for the breaking or injuring of any sub-aqueous telegraph or telephone cable, unless such corporation has previously erected, on either bank of the waters under which the cable is placed, a monument, indicating the place where the cable lies, and publishes for one month in some newspaper most likely to give notice to navigators, a notice giving the description and the purpose of the monuments, and the general course, landings, and termini of the cable.

SECTION 540 to be amended to read as follows:

May dispose of certain rights.

Sec. 540. Any telegraph or telephone corporation may, at any time, with the consent of the persons holding two thirds of the issued stock of the corporation, sell, lease, assign, transfer, or convey any rights, privileges, franchises, or property of the corporation, except its corporate franchise; *provided*, that this section shall not be so construed as to permit the leasing or alienation of any franchise by any such corporation, so as to relieve the franchise or property held thereunder from the liabilities of the lessor or grantor, lessee or grantee, contracted or incurred in the operation, use, or enjoyment of such franchise, or any of its privileges.

NOTE.—The amendments to the five preceding sections consist merely in placing telephone companies on the same footing with telegraph companies in relation to the construction and maintenance of their lines.

SECTION 548. To be repealed.

NOTE.—The section is in conflict with Section 19, Article XI, of the Constitution.

SECTION 549. To be repealed.

NOTE.—The section is unconstitutional.

SECTION 550. To be repealed.

NOTE.—The section is unconstitutional.

SECTION 565. To be amended to read as follows:

Annual report to be published.

Sec. 565. The actual financial condition of all homestead corporations must, by the directors thereof, be published annually in a newspaper published at the principal place of business of the corporation, for four weeks, if published in a weekly, and two weeks, if published in a daily. The statement must be made up to the end of each year, and must be verified by the oath of the president and secretary, showing the items of property and liabilities.

SECTION 571. To be amended to read as follows:

Organization of savings and loan corporations—On what terms may loan money, how, and to whom, and how long.

Sec. 571. Corporations organized for the purpose of accumulating and loaning the funds of their members, stockholders, and depositors, may loan and invest the funds thereof, receive deposits of money, loan, invest, and collect the same, with interest, and may repay depositors with or without interest. No such corporation must loan money, except on adequate security on real or personal property, and such loan must not be for a longer period than six years. No savings and loan corporation shall do business under the same management as, or in the same banking house with, any other banking institution.

NOTE.—The amendment prohibits savings banks from doing business in conjunction with any other banking institution.

SECTION 574. To be amended to read as follows:

Property which may be owned, and how disposed of.

Sec. 574. Savings and loan corporations may purchase, hold, and convey real and personal property, as follows:

1. The lot and building in which the business of the corporation is carried on, the cost of which must not exceed one hundred thousand dollars; except, on a vote of two thirds of the stockholders, the corporation may increase the sum to an amount not exceeding two hundred and fifty thousand dollars;

2. Such as may have been mortgaged, pledged, or conveyed to it in trust, for its benefit in good faith, for money loaned in pursuance of the regular business of the corporation;

3. Such as may have been purchased at sales under pledges, mortgages, or deeds of trust made for its benefit, for money so loaned, and such as may be conveyed to it by borrowers in satisfaction and discharge of loans made thereon;

4. No such corporation must purchase, hold, or convey real estate in any other case or for any other purpose; and all real estate described in subdivision three of this section must be sold by the corporation within five years after the title thereto is vested in it by purchase or otherwise;

5. No such corporation must purchase, own, or sell personal property, except such as may be requisite for its immediate accommodation for the convenient transaction of its business, mortgages on real estate, bonds, securities, or evidences of indebtedness, public or private, gold and silver bullion, and United States mint certificates of ascertained value, and evidences of debt issued by the United States;

6. No such corporation must purchase, hold, or convey bonds, securities, or evidences of indebtedness, public or private, except bonds of the United States, of the State of California, and of the counties, cities,

cities and counties, towns, or school districts of the State of California, unless such corporation has a capital stock or reserved fund paid in of not less than three hundred thousand dollars.

NOTE.—The amendment authorizes the purchase of school district bonds by savings and loan corporations irrespective of the amount of their capital stock.

SECTION 585. To be repealed.

NOTE.—The section refers to the procedure enacted by Section 584, which was repealed in 1875.

SECTION 588. A new section to be added, to read as follows:

Books and reports of mining corporations.

Sec. 588. It shall be the duty of the secretary of every corporation formed under the laws of this State for the purpose of mining, to keep a complete set of books, showing all receipts and expenditures of such corporation, the sources of such receipts, and the object of such expenditures, and also all transfers of stock. All books and papers shall at all times, during business hours, be open to the inspection of any bona fide stockholder; and if any stockholder shall at any time so request, it shall be the duty of the secretary to attend at the office of said company at least one hour in the day out of regular business hours, and exhibit such books and papers of the company as such stockholder may desire, and such stockholder shall be entitled to be accompanied by an expert; and he shall also be entitled to make copies or extracts from any such books or papers. It shall be the duty of the directors, on the first Monday of each and every month, to cause to be made an itemized account or balance-sheet for the previous month, embracing a full and complete statement of all disbursements and receipts, showing from what sources such receipts were derived, and for what and to whom such disbursements or payments were made, and for what object or purpose the same were made; also all indebtedness or liabilities incurred or existing at the time, and for what the same were incurred, and the balance of money, if any, on hand. Such account or balance-sheet shall be verified under oath by the president and secretary, and posted in some conspicuous place in the office of the company. It shall be the duty of the superintendent, on the first Monday of each month, to file with the secretary an itemized account, verified under oath, showing all receipts and disbursements made by him for the previous month, and for what said disbursements were made. It shall also be the duty of the superintendent to file with the secretary a weekly statement, under oath, showing the number of men employed under him and for what purpose, and the rate of wages paid to each one. He shall attach to such account a full and complete report, under oath, of the work done in said mine, the amount of ore extracted, from what part of the mine taken, the amount sent to mill for reduction, its assay

value, the amount of bullion received, the amount of bullion shipped to the office of the company or elsewhere, and the amount, if any, retained by the superintendent. It shall also be his duty to forward to the office of the company a full report, under oath, of all discoveries of ores or mineral-bearing quartz made in said mine, whether by boring, drifting, sinking, or otherwise, together with the assay value thereof. All accounts, reports, and correspondence from the superintendent shall be kept in some conspicuous place in the office of said company, and be open to the inspection of all stockholders.

SECTION 589. A new section to be added to read as follows:

Examination of grounds by stockholders.

Sec. 589. Any bona fide stockholder of a corporation formed under the laws of this State for the purpose of mining shall be entitled to visit, accompanied by his expert, and examine, the mine or mines owned by such corporation, and every part thereof, at any time he may see fit to make such visit and examination; and when such stockholder shall make application to the president of such corporation, he shall immediately cause the secretary thereof to issue and deliver to such applicant an order, under the seal of the corporation, directed to the superintendent, commanding him to show and exhibit such parts of said mine or mines as the party named in said order may desire to visit and examine. It shall be the duty of the superintendent, on receiving such order, to furnish such stockholder every facility for making a full and complete inspection of said mine or mines, and of the workings therein; it shall be his duty also either to accompany said stockholder in person, or to furnish some person familiar with said mine or mines to accompany him in his visit to and through such mine or mines, and every part thereof. In case of the failure or refusal of the superintendent to obey such order, such stockholder shall be entitled to recover in any court of competent jurisdiction, against said corporation, the sum of one thousand dollars and traveling expenses to and from said mine as liquidated damages, together with costs of suit. In case of such refusal, it shall be the duty of the directors of such corporation forthwith to remove the officer so refusing, and thereafter he shall not be employed, directly or indirectly, by such corporation, and no salary shall be paid to him.

SECTION 590. A new section to be added to read as follows:

Penalty for refusal to permit examination of grounds, and for failure to make and post reports.

Sec. 590. In case of the refusal or neglect of the president to cause to be issued by the secretary the order in the preceding section mentioned, such stockholder shall be entitled to recover against said presi-

dent the sum of one thousand dollars and costs. In case of the failure of the directors to have the reports and accounts current made and posted as provided in section five hundred and eighty-eight, they shall be liable, either severally or jointly, to an action by any stockholder, in any court of competent jurisdiction, complaining thereof, and on proof of such refusal or failure, such complaining stockholder shall recover judgment for one thousand dollars liquidated damages, with costs of suit.

NOTE.—The foregoing three proposed new sections contain the provisions of the Act for the protection of stockholders in California mining corporations, approved March 30, 1874 (Stats. 1873-4, p. 866).

SECTION 591. A new section to be added to read as follows:

Certain acts of directors unlawful, unless two thirds of capital stock consent thereto.

Sec. 591. It shall not be lawful for the directors of any mining corporation to sell, lease, mortgage, or otherwise dispose of the whole or any part of the mining ground owned or held by such corporation, or to purchase or obtain, in any way, any additional mining ground, unless such act be ratified by the holders of at least two thirds of the capital stock of such corporation. Such ratification may be made either in writing, signed and acknowledged by such stockholders, or by resolution, duly passed at a stockholders' meeting called for that purpose.

SECTION 592. A new section to be added to Title XI, Division I, Part IV, to read as follows:

Stock to be in the name of real owner or trustee, and how voted.

Sec. 592. All stock in each and every mining corporation in this State shall stand in the books of said company, in all cases, in the names of the real owners of such stock, or in the names of the trustees of such real owners; but in every case where such stock shall stand in the name of a trustee, the party for whom he holds such stock in trust shall be designated upon said books, and also in the body of the certificate of such stock. And it shall not be lawful for any such corporation, or the secretary thereof, to close the books of said corporation more than two days prior to the day of any election. At such election the stock of said corporation shall be voted by the bona fide owners thereof, as shown by the books of said corporation, unless the certificate of stock, duly indorsed, be produced at such election, in which case said certificates shall be deemed the highest evidence of ownership, and the holder thereof shall be entitled to vote the same.

Title XII, Division I, Part IV, to be changed to "Corporations organized for purposes other than pecuniary profit."

SECTION 602. To be amended to read as follows:

Sec. 602. Whenever the rules, regulations, or discipline of any religious denomination, society, or church so require, for the administration of the temporalities thereof, and the management of the estate and property thereof, it shall be lawful for the bishop, chief priest, or presiding elder of such religious denomination, society, or church to become a sole corporation, in the manner prescribed in this title, as nearly as may be, and with all the powers and duties, and for the uses and purposes in this title provided for religious incorporations, and subject to all the conditions, limitations, and provisions in said title prescribed. Every corporation sole shall, however, have power to contract in the same manner and to the same extent as a natural person, and may sue and be sued, and may defend, in all courts and places, in all matters and proceedings whatever, and shall have authority to borrow money, and give promissory notes therefor, and to secure the payment thereof by mortgage or other lien upon property, real or personal; and to buy, sell, lease, mortgage, and in every way deal in real and personal property to the same extent and in the same manner that a natural person may, and without the order of any court. The articles of incorporation to be filed shall set forth the facts authorizing such incorporation, and declare the manner in which any vacancy occurring in the incumbency of such bishop, chief priest, or presiding elder is required by the rules, regulations, or discipline of such denomination, society, or church to be filled, which statement shall be verified by affidavit, and for proof of the appointment or election of such bishop, chief priest, or presiding elder, or of any succeeding incumbent of such corporation, it shall be sufficient to record with the clerk of the county in which such bishop, chief priest, or presiding elder resides the original or a copy of his commission, or certificate, or letters of election or appointment, duly attested; *provided*, all property held by such bishop, chief priest, or presiding elder shall be in trust for the use, purpose, and behoof of his religious denomination, society, or church. The limitation in section five hundred and ninety-five shall not apply to corporations formed under this section, when the land is held or used for churches, hospitals, schools, colleges, orphan asylums, parsonages, or cemetery purposes. Any judge of the Superior Court in the county in which any corporation is formed under this chapter shall at all times have access to the books of such incorporation. Any corporation sole heretofore organized and existing under the laws of this State may elect to continue its existence under this title by filing a certificate to that effect, under its corporate seal and the hand of its incumbent, or amended articles of incorporation, in the form required by this title, and as prescribed by section two hundred and eighty-seven of this Code; and from and after the filing of such certificate or amended articles, such corporation shall be entitled

to the privileges and subject to the duties, liabilities, and provisions in this title expressed.

SECTION 603. To be repealed.

NOTE.—An attempt was made to repeal this section by the Act of March 11, 1887, the repealing Act mentioning Section 604 instead of Section 603 of the Code.

TITLE XIV. The heading thereof to be amended to read as follows:

Agricultural fair, coöperative and business corporations, and corporations for the extension and promotion of trade and commerce, and for the advancement, protection, and improvement of mechanic arts and sciences.

SECTION 623. A new section to be added to read as follows:

Coöperative business corporations, and by-laws thereof.

Sec. 623. A coöperative business corporation can be formed for the purpose of conducting any lawful business, and of dividing a portion of its profits among persons other than its stockholders, under division first, part four, title one, of this Code, and the by-laws thereof, in addition to the matters enumerated in section three hundred and three of this Code, may provide for the number of votes to which each stockholder shall be entitled, and the amount of profits which shall be divided among persons other than stockholders, and the manner in which, and the persons among whom, such division shall be made.

NOTE.—This section contains the provisions of the Act of April 1, 1878. (Stats. 1877-8, p. 883.)

SECTION 624. A new section to be added to read as follows:

Formation of chambers of commerce, boards of trade, mechanic institutes, and other kindred associations.

Sec. 624. Corporations for the organization of chambers of commerce, boards of trade, mechanic institutes, and other associations for the extension and promotion of trade and commerce, and for the advancement, promotion, and improvement of the mechanical arts and sciences, may be formed under the provisions of this title; and such corporations, and the members thereof, shall be subject to the liabilities imposed by this title, and to none other. Any twenty or more persons, who may desire to form a corporation for any of the purposes specified in this section, shall make, sign, and acknowledge, before some officer competent to take acknowledgments of deeds, and file in the office of the County Clerk of the county in which the principal place of business of the corporation is intended to be located, and a certified copy thereof in the office of the Secretary of State, articles of incorporation, in which shall be stated the corporate name of the corporation, the object for which the corporation shall be formed, the time of the existence, not to

exceed fifty years, the name of the city, or town, and county, in which the principal place of business of the corporation is to be located; and, if the right to exercise the corporate powers of the corporation is confined to a board of directors, board of trustees, or to a body to be styled the executive committee of the corporation, the articles of incorporation shall state that fact, and whether the right is limited, or otherwise, and the names of those who shall have been selected to manage the affairs of the corporation for the first six months. If it is desired that such corporation shall have a capital stock, the articles of incorporation shall also contain a statement of the amount of such capital stock, and the number of shares into which it is divided. Upon the filing of a certified copy of the articles of incorporation with the Secretary of State, he must issue to the corporation, over the great seal of the State, a certificate, that a copy of the articles, containing the required statement of facts, has been filed in his office; and thereupon the persons signing the articles, and their associates and successors, shall be a body politic and corporate, by the name stated in the certificate, and for a term not to exceed fifty years.

SECTION 625. A new section to be added to read as follows:

By-laws of such corporation.

Sec. 625. The by-laws of corporations formed under the preceding section shall determine the manner of calling and conducting the meetings of the corporation, the number of members that shall constitute a quorum, the manner of levying and collecting assessments, the officers of the same, the manner of their election or appointment, and their tenure of office, and may prescribe penalties for the violation of their by-laws, not to exceed in any case one hundred dollars for any one offense. The by-laws of all corporations formed under the provisions of the preceding section, without capital stock, shall prescribe how the officers, agents, and servants shall be elected or appointed.

SECTION 626. A new section to be added to read as follows:

The rights and powers of such corporations.

Sec. 626. Corporations formed under section six hundred and twenty-four of this Code shall have power to lease, purchase, hire, hold, use, take possession of, or enjoy in fee simple, or otherwise, any personal or real estate, within this State, necessary for the uses and purposes of such corporation, and to sell, lease, deed in trust, alien, or dispose of the same at their pleasure. All real estate owned by such corporation shall be held in the name of the same, and all conveyances made by such corporation shall be signed by the president and secretary, and attested by the corporate seal; *provided*, that no such corporation shall engage in any mercantile, commercial, or mechanical business. Such

corporation shall have power to confer upon the board of directors, board of trustees, or upon a body to be known as the executive committee of the corporation, the right to exercise all or any portion of the corporate powers of the corporation.

SECTION 627. A new section to be added to read as follows:

Other rights and powers of such corporations.

Sec. 627. Corporations formed under the provisions of section six hundred and twenty-four of this title shall have power:

1. To sue and be sued in any court;
2. To make and use a common seal, and alter the same at pleasure;
3. To elect or appoint such officers, agents, or servants, as the business of the corporation shall require;
4. To make by-laws not inconsistent with the constitution and laws of this State, nor unreasonable in their practical operation, for the organization of the corporation and the management of its affairs.

Corporations formed under section six hundred and twenty-four of this title, if they have a capital stock, shall determine by their by-laws the relative rights of stockholders and members at large.

NOTE.—The four proposed preceding sections contain the material provisions of the Act of March 31, 1866, to provide for the formation of chambers of commerce, boards of trade, mechanic institutes, and other kindred associations. (See Stats. 1866, p. 469.)

SECTION 628. To be repealed.

NOTE.—The section conflicts with Article XI, Section 19, of the Constitution.

TITLE XVI. To be amended to read as follows:

TITLE XVI.

BUILDING AND LOAN ASSOCIATIONS.

SECTION 633. *What are building and loan associations—Commissioners may determine.*

Sec. 633. The name "building and loan association," and all reference to the same as "association" or "associations," as used in this title, shall include all corporations, societies, or organizations, investment companies, or associations, whether organized in this State or represented by agents, doing a savings and loan or investment business, and which are not under the direct supervision of the Bank Commissioners or the Insurance Commissioner, and whether issuing certificates of stock which mature at a time fixed in advance or not, and shall also include any association or company which is based on the plan of building and loan associations, and which contains features similar to

such associations, and the Commissioners of the Building and Loan Associations are hereby vested with the power of determining whether such association or associations contain such features as are based on plans similar to those of building and loan associations, and whether they properly come within the purview of this title.

SECTION 634. *Corporations may be formed—What articles shall contain—Capital stock, and how paid in.*

Sec. 634. Corporations may be formed subject to the provisions of this title, and with all the rights, duties, and powers herein specified. Such corporations shall be known as mutual building and loan associations, and the words "mutual building and loan association" shall form part of the name of every such corporation. The articles of incorporation, in setting forth the purposes for which the corporation is formed, shall state that it is formed to encourage industry, frugality, home building among the stockholders; the accumulation of savings; the loan to its stockholders of the funds so accumulated, with the profits and earnings; and the repayment to each stockholder of his savings and profits when they have accumulated to a certain sum, or at any time when he shall desire the same, as provided in the by-laws, or when the corporation shall desire to repay the same; and shall also state that it is formed for all the purposes specified in this title.

The capital stock of such corporations shall be paid in by the stockholders in regular, equal, periodical payments, at such times and in such amounts as shall be provided in the by-laws. Such periodical payments shall be called dues. And at or before a time to be stated in the by-laws, each stockholder shall pay to the corporation, upon each share of stock held by him, such an amount of dues as the by-laws shall provide; and the payment of dues shall so continue on each share of stock issued till it reaches its matured value, or is withdrawn, canceled, or forfeited. The capital stock shall consist, primarily, of the accumulated dues paid in, and secondarily, of such profits as may be apportioned to such shares whenever such dues and profits shall be sufficient to mature the shares of any particular series. The full-paid capital stock of such association shall in no case exceed two million dollars. It shall be divided into shares of matured or par value of one hundred dollars or two hundred dollars each, as shall be provided in the articles of incorporation and fixed by the by-laws. Certificates of stock shall be issued to each stockholder on the first payment of dues by him. The shares shall be issued in yearly, half-yearly, or quarterly series, in such amounts in each series, and at such times, as shall be determined by the board of directors. No shares of a prior series shall be issued after the issuing of shares in a new series. Shares which have not been pledged as a security for the repayments of a loan shall be

called free shares. Shares that have been so pledged shall be called pledged shares. All stock matured and surrendered or canceled in any series shall become the property of the corporation, and may be issued in any subsequent series. Payment of dues on shares of stock in each series shall commence from the time that shares began to be issued in such series. Any such corporation shall have power by its by-laws to impose and collect a fine from each stockholder, not exceeding ten per cent of the defaulted amount, for any failure, neglect, or refusal to make his payments of dues on the regular payday specified. On any default in the payment of interest, premium, or fees, or on the failure, neglect, or refusal of any borrower to refund any moneys advanced by the association to protect the mortgaged property from the action of mechanics' liens or tax liens (other than taxes on said mortgage), or a failure or refusal to repay money advanced for the payment of insurance premiums or other similar charges against the mortgaged property, the association shall have power to levy a fine, not exceeding five per cent on such defaulted amount. On the cumulative amount of such dues, delinquencies, and advances upon which a first fine of five or ten per cent may have been imposed, the association shall have power to levy a fine, not exceeding two per cent, on each succeeding regular payday after the first, during such default. Every such corporation shall also have power to charge an entrance fee upon each share of stock issued, not exceeding ten cents on each share, and may also charge a transfer fee, not exceeding ten cents on each share, all of which shall be paid into the treasury and accounted for as all other funds of the association. Payment of dues or interest may be made in advance, but no association shall allow interest on such advance payments at a greater rate than six per cent per annum, nor for a longer period than one year.

SECTION 635. *Free shares—How may be withdrawn.*

Sec. 635. The directors may, at their discretion, under the regulations prescribed in their by-laws, retire the free shares of any series of stock, at any time after four years from the date of their issue, by enforcing the withdrawal of the same; but whenever there shall remain in any series at the expiration of five years after the date of its issue, an excess above one hundred free shares of the par value of two hundred dollars each, or two hundred free shares of the par value of one hundred dollars each, then it shall be the duty of the directors to retire annually twenty-five per cent of such excess existing at said expiration of five years after the date of its issue, so that no more than one hundred free shares shall remain in such series at the expiration of nine years from the date of its issue; *provided*, that no more than one half of the monthly receipts shall be used for that purpose; and thereafter the directors may, in their discretion, retire such other free shares as they consider it to the

best interest of the association to retire; *provided*, that whenever, under the provisions of this section, the withdrawal of shares is to be enforced, the shares to be retired shall be determined by lot, drawn from all free shares in the series, as shall be regulated by the by-laws, and the holders thereof shall be paid the amount actually paid in, and the full amount of earnings at the date of last apportionment of profits.

SECTION 636. *Proceedings when stock matured—Moneys, how loaned—Premium—Interest.*

Sec. 636. When the stock in any series shall have reached its matured value, payment of dues thereon shall cease, and all the stockholders in such series who have borrowed from the association shall be entitled to have their securities returned to them, and a satisfaction of the mortgages made by them to the association; and the holders of free shares of stock in such series shall be paid, out of the funds of the association, the matured value thereof, with such rate of interest as shall be determined by the by-laws, from the time the board of directors shall declare such shares to have been matured, until paid; but at no time shall more than one third of the receipts of the association be applicable to the payment of matured shares without the consent of the board of directors. The order of the payment of the matured shares shall be determined by the by-laws.

The moneys in the hands of the treasurer, and such sums as may be borrowed by the corporation for the purpose, shall be loaned out in open meeting to the member who shall bid the highest premium, or may be loaned out at such premium as may be fixed, from time to time, by the board of directors; and the premium may be deducted from the amount of the loan, or such proportion may be deducted as the by-laws shall provide, and in that case the balance of said premium shall be payable in such installments as the by-laws shall determine; *provided, however*, that where the premium is payable in installments, the number of installments into which the same is divided shall be uniformly applicable to all loans made by the corporation, and shall be payable at the times and in the manner as provided in the by-laws; *and provided further*, that in no case shall the amount loaned exceed the matured value of the shares pledged to secure the loan.

The rate of interest on all loans may be fixed by the by-laws, but in case the by-laws fail to fix the rate, then it shall be fixed from time to time by the board of directors. For every loan made, a note or obligation secured by a first mortgage upon unincumbered real estate shall be given, accompanied by a transfer and pledge to the association of the shares borrowed upon, as collateral security for the repayment of the loan; or, in lieu of the mortgage, there may be pledged and transferred to the association, for the payment of the loan,

free shares, the withdrawal value of which under the by-laws, at the time of such borrowing, shall exceed the amount borrowed and interest thereon for six months. At the discretion of the board of directors, a borrower may repay a loan, and all arrears of interest and fines thereon at any time upon the surrender of the shares pledged for the loan.

SECTION 637. *Member in arrears—Proceedings on.*

Sec. 637. Whenever any member shall be six months in arrears in the payment of his dues upon free shares, the secretary shall give him notice thereof, in writing, and a statement of his arrearages, by mailing the same to him at the last post office address given by him to the association, and if he shall not pay the same within two months thereafter, the board of directors may, at their option, declare his shares forfeited; and at the time of such forfeiture the withdrawal value thereof shall be determined and stated, and the defaulting member shall be entitled to withdraw the same without interest, upon such notice as shall be required of a withdrawing shareholder. Whenever a borrowing member shall be six months in arrears in the payment of his dues, or interest, or premium, the whole loan shall become due at the option of the board of directors, and they may proceed to enforce collection upon securities held by the association. The withdrawal value, at the time of the commencement of the action, of all shares pledged as collateral security for the loan, shall be applied to the payment of the loan, and said shares, from that time, shall be deemed surrendered to the association.

SECTION 638. *Associations may purchase property and borrow money—Profits and losses may be apportioned.*

Sec. 638. Any such association may purchase at any sale, public or private, any real estate upon which it may have a mortgage, judgment, lien, or other incumbrance, or in which it may have an interest; and may sell, convey, lease, or mortgage the same at pleasure to any person or persons, and may borrow money for the purpose of making loans or paying withdrawals. Profits and losses shall be apportioned at least annually, and shall be apportioned to all the shares in each series outstanding at the time of such apportionment, according to the actual value of such shares as distinguished from their withdrawal value.

SECTION 639. *Who may become member—Shares exempt from execution—Stockholders may withdraw upon notice—Withdrawal value of shares; how paid.*

Sec. 639. Any person of the age of majority and of sound mind may become a member of the association by taking one or more shares therein, and subscribing to the by-laws and annexing to his signature his post office address. A minor may hold shares in the name of the

parent, guardian, or next friend, as trustee. The shares of stock in any such corporation held by any person, to the value of one thousand dollars, shall be exempt from execution.

Stockholders desiring to withdraw from any association, or to surrender a part or all of their stock, shall have power to do so by giving thirty days' notice, in writing, of such intention to withdraw. On the expiration of such notice, the stockholder so withdrawing shall be entitled to receive the full amount paid in by him or her, together with such proportion of the earnings thereon as the by-laws may provide, or as may have been fixed by the board of directors; *provided*, that no more than one half of the monthly receipts in any one month shall be applied to withdrawals for that month, without the consent of the board of directors, and no shareholder shall be permitted to withdraw whose stock is pledged as security to the association for a loan until such loan is fully paid. Such withdrawals shall be paid in succession, in the order in which the notices are given. All payments on shares, and such portion of profits as the by-laws or board of directors may provide to be paid to withdrawing members, shall be construed as partial payments on the note or other obligation given by the borrower, in the event that the borrower elects and is permitted to discharge his obligation before maturity. Interest shall be payable on the full amount of the loan until paid. For the purposes of taxation, the cancellation value of the mortgage on the first Monday in March of each year (the amount that would be required at that time to cancel said loan if paid off, the shares being surrendered) shall constitute the assessable value of said mortgage.

SECTION 640. *Associations may insure the lives of members and debtors.*

Sec. 640. Such corporations may insure, in some life insurance company incorporated under the laws of this State, the lives of its members and debtors. In case of death of a debtor or member so insured, the amount recovered on the policy must be applied to extinguish the indebtedness, including the premium paid, and the residue, if any, must be paid to the legal representative of the decedent.

SECTION 641. *Secretary must prepare and file annual statement—Two associations may consolidate.*

Sec. 641. The secretary of any such corporation must, at least once in each year during the existence of the corporation, prepare a full and explicit statement showing the condition of the financial affairs thereof at twelve o'clock meridian on the first Monday of March of each year, comprising a balance-sheet, statements of receipts and expenditures, profit and loss, and assets and liabilities, which must be audited and verified by two competent persons (not directors), and, as to the value of the assets, be verified by a majority of the directory thereof, elected by the general body of shareholders, and be countersigned by the president

and secretary. A copy of such statement must be printed and circulated among the members, and appear immediately after the annual meeting of the corporation, daily at least one week, or weekly at least four weeks, in one or more newspapers published at the place of the principal business of the corporation, and a copy thereof must be filed in the office of the Assessor of the county where such publication is made. Any two or more such corporations may unite and become incorporated in one body, with or without any dissolution or division of the funds of such corporation, or either of them; or any such corporation may transfer its engagements, funds, and property to any other such corporation, upon such terms as may be agreed upon by two thirds of the members of each of such bodies present at general meetings of the members convened for the purpose by notice, stating the object of the meeting, sent through the post office to every member, and by general notice appearing daily at least one week, or weekly at least two weeks, in some newspaper published at the place of the principal business of the corporation; but no such transfer can prejudice any right of any creditor of either corporation.

SECTION 642. *Foreign associations must deposit fifty thousand dollars with State officer for security of members in this State.*

Sec. 642. No mutual building and loan association, or company, association, or corporation organized under the laws of any other State or Territory, to carry on a business of a like character to that authorized by this title, shall be allowed to do business or to sell their stock in this State, without first having deposited with the State Controller or Secretary of State the sum of fifty thousand dollars in money, or in United States bonds, or in municipal bonds of this State, or in mortgages upon real estate located within this State, as a guarantee fund for the protection and indemnity of residents of the State of California with whom such company, association, or corporation shall do business. The fund so deposited shall be paid by the custodian thereof to the residents of California only, and not then until proof of claim, by final judgment, has been filed with the custodian of said fund against such foreign company, association, or corporation. Any of the securities so deposited may be withdrawn at any time upon others, herein provided for, of like amount, being substituted in lieu thereof. Any person or persons who shall be found in this State as agent, or in any other capacity representing such foreign company, association, or corporation which has not complied with the provisions of this section, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine not exceeding one thousand dollars, or by imprisonment in a county jail for not exceeding twelve months, or by both such fine and imprisonment.

SECTION 643. *Building and Loan Commissioners, their salaries and secretary.*

Sec. 643. All building and loan associations heretofore or hereafter incorporated under the laws of this State, or of any other State or Territory, or those of any foreign country, and doing business in this State, shall be subject to the examination and supervision of a Board of Commissioners of Building and Loan Associations, which board shall consist of two commissioners, each of whom shall be an expert of accounts, and shall be appointed by the Governor, within thirty days after the passage of this title, to hold office for the period of four years, and until their successors are appointed and qualified. The commissioners shall each receive a salary of twenty-four hundred dollars per annum and necessary traveling expenses, not to exceed for the two commissioners and their secretary the sum of seven hundred dollars per annum. Said commissioners are hereby authorized to appoint a secretary, at a salary not to exceed twelve hundred dollars per annum, who shall have power to examine the books and affairs of the associations, the same as the commissioners. All said salaries and traveling expenses shall be audited by the State Controller, and paid in the same manner as the salaries of other state officers. The commissioners shall have their office in San Francisco, which office shall be kept open for business every business day, and during such hours as are commonly observed by the banks of that city as banking hours. They shall procure rooms for their office at a monthly rental not exceeding forty dollars. They may also provide fuel, stationery, printing, and other necessary conveniences connected with their office, not to exceed an aggregate cost of four hundred dollars per annum. All expenses authorized in this section shall be audited and paid in the same manner as the salary of the commissioners. The commissioners, before entering upon the duties of their office, must each execute an official bond in the sum of five thousand dollars, and take the oath of office as prescribed by the Political Code for state officers in general. The secretary appointed by said commissioners shall execute a bond in the sum of two thousand dollars, and take the oath of office as prescribed by said Political Code.

SECTION 644. *Powers and duties of commissioners.*

Sec. 644. The duties of the Commissioners of Building and Loan Associations shall be, to furnish to all corporations legally authorized to transact the business of a building and loan association within this State a license authorizing them to transact the business of a building and loan association for one year from the date of said license; to receive, and place on file in their office, the annual reports required to be made by building and loan associations by this title; to supply each association with blank forms and such statements as the commissioners

may require; to make, on or before the first day of October of each year, a tabulated report to the Governor of this State, showing the condition of all institutions examined by them, with such recommendations as they may deem proper, accompanied by a detailed statement, verified by oath, of all moneys received and expended by them since their last report.

The commissioners shall visit, once in every year, and as much oftener as they may deem expedient, every building and loan association doing business in this State. At such visits they shall have free access to the vaults, books, and papers, and shall thoroughly inspect and examine all the affairs of each of said corporations, and make such inquiries as may be necessary to ascertain its condition and ability to fulfill all its engagements, and whether it has complied with the provisions of law governing such associations; they shall preserve, in a permanent form, a full record of their proceedings, including a statement of the condition of each of said corporations, which shall be open to the inspection of the public during their office hours.

To facilitate the examinations of the commissioners as specified in this title, every association shall keep a book of records, written in ink, showing the appraised values of the real estate security held in connection with each loan, and signed in each case by the appraiser, or officer or committee of the association making such estimated value. The commissioners shall have power to order a re-valuation of the securities of any building and loan association when they deem it necessary, and may, for that purpose, appoint local appraisers at the expense of such association, the total expense of such appraisal not to exceed two dollars and fifty cents for each piece of property examined and appraised. Each appraiser shall make a sworn report to the commissioners of the appraised values of all property examined.

Either of the commissioners may summon all trustees, officers, or agents of any such corporation, and such other witnesses as he thinks proper, in relation to the affairs, transactions, and condition of the corporation, and for that purpose may administer oaths; and whoever refuses, without justifiable cause, to appear and testify when thereto required, or obstructs a commissioner in the discharge of his duty, shall be punished by a fine not exceeding one thousand dollars, or by imprisonment not exceeding one year, or by both such fine and imprisonment.

SECTION 645. *Commissioners shall notify Governor and Attorney-General when associations in unsafe condition—Attorney-General shall institute suit—Appoint receiver.*

Sec. 645. If the commissioners, upon examination of any corporation under their supervision, find that such corporation has been violating the provisions of law governing such associations, or is conducting

its business in an unsafe manner, such as to render its further proceeding hazardous to the public, or to those having funds in its custody, they shall notify the Governor and the Attorney-General of such facts, and the Attorney-General, in his discretion, may apply to the judge of the Superior Court of the county in which such corporation is doing business, to issue an injunction restraining such corporation, in whole or in part, from further proceeding with its business until a hearing can be had. Such judge may, in such application, issue such injunction, and after a full hearing, may dissolve or modify it, or make it perpetual, and may make such orders and decrees according to the course of proceedings in equity, to restrain or prohibit the further prosecution of the business of the corporation, as may be needful in the premises; and may appoint one or more receivers to take possession of its property and effects, subject to such directions as may from time to time be prescribed by the court.

If either of the commissioners, having knowledge of the insolvent condition, or any violation of law, or unsafe practice of any association under their supervision, such as renders, in their opinion, the conduct of its business hazardous to its shareholders or depositors, and shall fail to report the same in writing to the Attorney-General, as required by this title, then such commissioner, on conviction thereof, shall be punished by a fine of not less than five thousand dollars, nor more than ten thousand dollars, or by imprisonment in the county jail not less than one year, nor more than two years, or by both such fine and imprisonment, and his office shall be declared vacant by the Governor, and a successor appointed to fill his unexpired term.

When receivers are so appointed, the secretary of the corporation shall make a schedule of all its property, and its secretary, board of investment, and other officers, transferring its property to the receivers, shall make oath that said schedule sets forth all the property which the corporation owns, or is entitled to. The secretary shall deliver said schedule to the receivers, and a copy thereof to the commissioners, who may at any time examine, under oath, such secretary, board of investment, or other officers, in order to determine whether or not all the property which the corporation owns, or is entitled to, has been transferred to the receivers.

SECTION 646. *Commissioners to make annual inspection of associations—Other examinations.*

Sec. 646. The commissioners, or one of them, shall, at least once in each year, and as much oftener as they may deem expedient, examine the accounts and doings of all such receivers, and shall carefully examine and report upon all accounts and reports of receivers made to the proper court and referred to the commissioners by the court, and, for the pur-

poses of this section, shall have free access to the books and papers relating to the transactions of such receivers, and may examine them under oath relative to such transactions. Upon the certificate, under oath, of any five or more officers, trustees, creditors, shareholders, or depositors of any such corporation, setting forth their interest and the reasons for making such examination, directed to the commissioners, and requesting them to examine such corporation, they shall forthwith make a full investigation of its affairs, in the manner provided. The commissioners, if in their opinion any such corporation, or its officers or trustees, have violated any law in relation to such corporations, shall forthwith report the same, with such remarks as they deem expedient, to the Attorney-General, who shall forthwith institute a prosecution for such violation, in behalf of the people of the State.

SECTION 647. *Expenses of commissioners, how paid.*

Sec. 647. To meet the expenses provided by this title, every building and loan association, or corporation or association doing business on the building and loan plan, shall pay, in advance, to the commissioners, its pro rata amount of such expenses, to be determined by an assessment levied on the shares of each of such associations in force on the thirty-first day of December of each year, according to the par value of such shares. The said commissioners shall levy and collect, in advance, such assessment on the shares of all such associations in force as per report, herein provided for, to be made to said commissioners, of the condition of such associations at the close of business on December thirty-first of each year; *provided, however*, that no association shall pay less than ten dollars per annum, and all associations hereafter organized shall each pay to the commissioners for their licenses not less than one dollar per month for the term expiring December thirty-first succeeding, dating from the time of application for license.

The collection of all moneys assessed, as herein provided, for the annual expenses, or forfeitable as fines for failure to make reports as herein specified, and due from any corporation or association coming within the provisions of this title, may be enforced by action instituted in any court of competent jurisdiction; and all moneys collected or received by the said commissioners under this title, shall be deposited with the State Treasurer, to the credit of a fund to be known and designated as the "building and loan association inspection fund."

SECTION 648. *Associations must procure license before engaging in business—Annual report to commissioners.*

Sec. 648. No association shall transact business in this State without first procuring from the Commissioners of the Building and Loan Associations a certificate of authority or license to do so. To procure such

authority it must file with the said commissioners a certified copy of its articles of incorporation, constitution, and by-laws, and all other printed rules and regulations relating to its methods of conducting business, and of all subsequent amendments or changes thereto, and otherwise comply with all requirements of law. No association, after the expiration of the term for which a license has been granted to it by the Commissioners of the Building and Loan Associations, shall continue to transact the business of a building and loan association without first procuring from said commissioners a renewal of such license on the terms provided for in this title; and any corporation violating this provision shall forfeit the sum of ten dollars per day during the continuance of the offense; and any violation of this section by any officer of such association shall be a misdemeanor. The commissioners are authorized and empowered to revoke the license of any association under their supervision, the solvency whereof is imperiled by losses or irregularities; and the commissioners, immediately upon revoking such license, shall report the facts to the Attorney-General, who shall thereupon take such proceedings as are provided by section six hundred and forty-five of this title.

Every building and loan association doing business in this State shall, once in every year, to wit, within thirty days after the expiration of its annual fiscal term, make a report, in writing, to the Commissioners of the Building and Loan Associations, verified by the oath of its president and secretary, showing accurately the financial condition of such association at the close of said term. The report shall be in such form as the commissioners shall prescribe, upon blanks by them furnished for that purpose, and shall specify the following particulars, namely: Name of the corporation, place where located, authorized capital stock, amount of stock paid in, the names of the directors, the amount of capital stock held by each, the amount due to shareholders, the amount and character of all other liabilities, cash on hand, and the number and value of shares in each and every series of stock issued by the association. All money received or disbursed by such association shall be duly accounted for. Any association failing to file the annual report within the time specified herein, shall be subject to a penalty of ten dollars per day for each and every day such report shall be delayed or withheld.

SECTION 709. To be amended to read as follows:

Sec. 709. If a condition precedent requires the performance of an act wrong of itself, or impossible, the instrument containing it is so far void. If it requires the performance of an act not wrong of itself, but otherwise unlawful, the instrument takes effect, and the condition is void. If a condition subsequent requires the performance of an unlawful or impossible act, the instrument takes effect and the condition is void.

SECTION 793. To be amended to read as follows:

Sec. 793. An action for the possession of real property leased or granted, with a right of reëntry, may be maintained at any time in the Superior Court, after the right to reënter has accrued, without the notice prescribed in section seven hundred and ninety-one.

NOTE.—The amendment changes "District Court" to "Superior Court."

SECTION 821. To be amended to read as follows:

Sec. 821. A person to whom any real property, upon which rent has been reserved, is transferred or devised, or who acquires in any manner the title thereto, or the right to collect the rents thereof, or to whom any such rent is transferred, or to whom is assigned the lease wherein such rent is reserved, is entitled, after notice thereof to the tenant or lessee, to the same remedies for the recovery of rent, for non-performance of any of the terms of the lease, or for any waste or cause of forfeiture, as his grantor, deviser, or predecessor might have had.

NOTE.—The amendment requires notice before the tenant is liable to an assignee or transferee (*O'Connor vs. Kelly*, 41 Cal. 432), and gives the holder of a Sheriff's certificate the usual remedy to collect rent from a tenant.

SECTION 822. To be amended to read as follows:

Sec. 822. Whatever remedies the lessor of any real property has against his immediate lessee for the breach of any agreement in the lease, or for the recovery of the possession, he has against the assignees, heirs, and personal representatives of the lessee, for any cause of action accruing after the assignment or after the death of said immediate lessee, except where the assignment was made by way of security for a loan, and is not accompanied by possession of the premises, and except that no judgment exceeding the amount of rent due, with interest and costs, shall be entered against the heirs or personal representatives.

NOTE.—The case of *Martel vs. Meehan*, 63 Cal. 47, approved in 107 Cal. 112, holds that the personal representatives of a tenant are not subject to the remedies for non-payment of rent which the Code gives to lessors. The proposed amendment will make them subject to such remedies, except that the judgment obtained for rent cannot be trebled.

SECTION 857. To be amended to read as follows:

Sec. 857. Express trusts may be created for any of the following purposes:

1. To sell real property, and apply or dispose of the proceeds in accordance with the instrument creating the trust;

2. To mortgage or lease real property for the benefit of annuitants, legatees, or other beneficiaries, or for the purpose of satisfying any charge thereon;

3. To receive the rents and profits of real property, and pay them to or apply them to the use of any person, whether ascertained at the time of the creation of the trust or not, for himself or for his family, during the life of such person, or for any shorter term, subject to the rules of Title II, Part I, Division II, of this Code; or,

4. To receive the rents and profits of real property, and to accumulate the same for the purposes and within the limits prescribed by the same title.

NOTE.—The amendment makes Subdivision 2 clearly applicable to beneficiaries other than those entitled under wills, and corrects an erroneous reference in Subdivision 3.

SECTION 970. To be amended to read as follows:

Sec. 970. When two sailing-vessels are approaching each other, so as to involve risk of collision, one of them shall keep out of the way of the other, as follows, namely:

1. A vessel which is running free shall keep out of the way of a vessel which is close-hauled;

2. A vessel which is close-hauled on the port tack shall keep out of the way of a vessel which is close-hauled on the starboard tack;

3. When both are running free, with the wind on different sides, the vessel which has the wind on the port side shall keep out of the way of the other;

4. When both are running free, with the wind on the same side, the vessel which is to the windward shall keep out of the way of the vessel which is to leeward;

5. A vessel which has the wind aft shall keep out of the way of the other vessel.

When two steam-vessels are meeting end on, or nearly end on, so as to involve risk of collision, each shall alter her course to starboard, so that each may pass on the port side of the other; but this provision only applies to cases where vessels are meeting end on, or nearly end on, in such a manner as to involve risk of collision, and does not apply to two vessels which must, if both keep on their respective courses, pass clear of each other; the only cases to which it does apply are when each of the two vessels is end on, or nearly end on, to the other; in other words, to cases in which, by day, each vessel sees the masts of the other in a line, or nearly in a line, with her own; and by night, to cases in which each vessel is in such a position as to see both the side-lights of the other; it does not apply by day to cases in which a vessel sees another ahead crossing her own course; or by night, to cases where the red light of one vessel is opposed to the red light of the other, or where the green light of one vessel is opposed to the green light of the other, or where a red light without a green light, or a green light without a red

light, is seen ahead, or where both green and red lights are seen anywhere but ahead.

When two steam-vessels are crossing, so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way of the other.

When a steam-vessel and a sailing-vessel are proceeding in such directions as to involve risk of collision, the steam-vessel shall keep out of the way of the sailing-vessel.

Where, by any of these rules, one of two vessels is to keep out of the way, the other shall keep her course and speed.

Every vessel which is directed by these rules to keep out of the way of another vessel shall, if the circumstances of the case admit, avoid crossing ahead of the other.

Every steam-vessel which is directed by these rules to keep out of the way of another vessel shall, on approaching her, if necessary, slacken her speed or stop or reverse.

Notwithstanding anything contained in these rules, every vessel, overtaking any other, shall keep out of the way of the overtaken vessel.

Every vessel coming up with another vessel from any direction more than two points abaft her beam, that is, in such a position, with reference to the vessel which she is overtaking, that at night she would be unable to see either of that vessel's side-lights, shall be deemed to be an overtaking vessel; and no subsequent alteration of the bearing between the two vessels shall make the overtaking vessel a crossing vessel within the meaning of these rules, or relieve her of the duty of keeping clear of the overtaken vessel until she is finally past and clear.

As by day the overtaking vessel cannot always know with certainty whether she is forward or abaft this direction from the other vessel, she should, if in doubt, assume that she is an overtaking vessel and keep out of the way.

In narrow channels every steam-vessel shall, when it is safe and practicable, keep to that side of the fair-way or mid-channel which lies on the starboard side of such vessel.

Sailing-vessels under way shall keep out of the way of sailing-vessels or boats fishing with nets, or lines, or trawls. This rule shall not give to any vessel or boat engaged in fishing the right of obstructing a fair-way used by vessels other than fishing-vessels or boats.

In obeying and construing these rules due regard shall be had to all dangers of navigation and collision, and to any special circumstances which may render a departure from the above rules necessary in order to avoid immediate danger.

NOTE.—The amendment is a reënactment of the Statutes of the United States upon the subject, inasmuch as it is deemed proper that the Federal and State laws should coincide on this subject.

SECTION 981. To be amended to read as follows:

Sec. 981. Unless otherwise agreed, a product of the mind, to the production of which several persons have jointly contributed, is owned by them in equal proportions.

SECTION 1015. To be amended to read as follows:

Sec. 1015. If a river or stream, navigable or not navigable, carries away, by sudden violence, a considerable and distinguishable part of a bank, and bears it to the opposite bank, or to another part of the same bank, it belongs to the owner of the part carried away, excepting that occupation thereof for one year by the owner of the land to which it has been united, without being reclaimed by the owner of the part carried away, confers title thereto upon the owner of the land to which it has been united.

NOTE.—The section, as it now stands, leaves the title of the part carried away uncertain, which question the proposed amendment will settle.

SECTION 1057. To be amended to read as follows:

Sec. 1057. A grant may be deposited by the grantor with a third person, to be delivered on performance of a condition, and on such delivery by the depositary it will take effect. While in possession of a third person, and subject to condition, it is called an escrow. A grant deposited by the grantor with a third person, to be delivered upon the death of the grantor, is void, and no estate passes thereunder.

NOTE.—Under this amendment, the rule will be as contended in the dissenting opinion in *Bury vs. Young*, 98 Cal. 446, and as the decision would have been if the court had not felt bound by former adjudications.

SECTION 1096. A new section to be added, to read as follows:

Conveyances by persons whose names are changed.

Sec. 1096. Any person in whom the title of real estate is vested, who shall afterwards, from any cause, have his or her name changed, shall, in any conveyances of real estate so held, set forth the name in which he or she derived title to said real estate.

NOTE.—The proposed section is the first section of an Act relating to conveyances of real estate, approved March 11, 1874, the remaining two sections of which it is proposed to place in the Political Code.

SECTION 1207. To be amended to read as follows:

Sec. 1207. Any instrument affecting real property, which was, previous to the thirtieth day of January, eighteen hundred and ninety-six, copied into the proper book of record, kept in the office of any County Recorder, shall be deemed to impart, after that date, notice of its contents to subsequent purchasers and incumbrancers, notwithstanding any defect, omission, or informality in the execution of the instrument, or

in the certificate of acknowledgment thereof, or the absence of any such certificate; but nothing herein shall be deemed to affect the rights of purchasers or incumbrancers previous to that date. Duly certified copies of the record of any such instrument may be read in evidence, with like effect as copies of an instrument duly acknowledged and recorded, provided it be first shown that the original instrument was genuine.

NOTE.—The only change made by the proposed amendment is to make it apply to all instruments copied in the proper book of record prior to January 30, 1896, instead of "previous to the thirtieth day of January, eighteen hundred and seventy-three," as it now reads.

SECTION 1214. To be amended to read as follows:

Sec. 1214. Every conveyance of real property, other than a lease for a term not exceeding one year, is void as against any subsequent purchaser or mortgagee of the same property, or any part thereof, without notice, in good faith and for a valuable consideration, whose conveyance or mortgage is first duly recorded, and as against any judgment affecting the title, unless such conveyance shall have been duly recorded prior to the record of a notice of the pendency of the action in which the judgment is rendered.

SECTION 1217. To be amended to read as follows:

Sec. 1217. An unrecorded instrument is valid as between the parties thereto and all other persons, except purchasers and incumbrancers for valuable consideration without notice and in good faith.

SECTION 1238. To be amended to read as follows:

From what may be selected.

Sec. 1238. If the claimant be married, the homestead may be selected from the community property, or the separate property of the husband, or, with the consent of the wife, from her separate property. When the claimant is not married, but is the head of a family within the meaning of section twelve hundred and sixty-one, the homestead may be selected from any of his or her property. When a co-tenant resides upon the property held in common, or upon a specific portion thereof, a homestead may be declared thereon, in the same manner and with the like effect as if the property resided upon were owned in severalty by such co-tenant, except that such declaration shall not prejudice the rights of the other co-tenants, upon partition or otherwise.

NOTE.—The amendment changes the rule long established in this State, by allowing a valid declaration of homestead to be made by a co-tenant upon the specific portion of the property held in common, upon which he resides.

SECTION 1241. To be amended to read as follows:

Sec. 1241. The homestead is subject to execution or forced sale in satisfaction of judgments obtained:

1. Before the declaration of homestead was filed for record, and which constitute liens upon the premises. But all such judgments must be satisfied, if possible, from other property subject to the lien thereof or belonging to the judgment debtors, or any of them, before the homestead is sold thereunder;

2. On debts secured by mechanics', contractors', sub-contractors', artisans', architects', builders', laborers' (of every class), material-men's, or vendors' liens upon the premises;

3. On debts secured by mortgages on the premises, executed and acknowledged by the husband and wife, or by an unmarried claimant;

4. On debts secured by mortgages on the premises, executed and recorded before the declaration of homestead was filed for record.

NOTE.—The effect of the proposed amendment is to compel the satisfaction of any judgment which is a lien upon the homestead to be satisfied out of any other property subject thereto, if possible, before the homestead can be sold.

SECTION 1242. To be amended to read as follows:

Sec. 1242. The homestead of a married person cannot be conveyed or incumbered unless the instrument by which it is conveyed or incumbered is executed and acknowledged by both husband and wife; *provided, however*, that any excess in value of the property described in the homestead declaration over the amount of the homestead exemption may be conveyed or incumbered by the husband alone, where the homestead has not been selected from the wife's separate estate.

NOTE.—The amendment gives the husband the power of disposition over the excess in the homestead over the exemption, except where a declaration was made upon the wife's separate property.

SECTION 1243. To be amended to read as follows:

Sec. 1243. A homestead can be abandoned only by a declaration of abandonment, or a grant of the whole thereof, or of an undivided interest therein executed and acknowledged:

1. By the husband and wife, if the claimant is married;
2. By the claimant, if unmarried.

NOTE.—The amendment causes the conveyance of an undivided interest in a homestead to work an abandonment, but allows the conveyance of a specific portion thereof without affecting the homestead on the remainder.

SECTION 1246. To be amended to read as follows:

Sec. 1246. The application must be made upon a verified petition, showing:

1. The fact that an execution has been levied upon the homestead;
2. The name of the claimant;

3. That the value of the homestead exceeds the amount of the homestead exemption, and exceeded such amount when said homestead was declared.

NOTE.—This amendment will prevent the sale of, or interference with, the homestead, by a creditor, unless it exceeds the value of the homestead exemption when the execution is issued, and also exceeded such value when the declaration of homestead was made. The amendment and those proposed to be made *infra* will make the provisions of this Code on the subject of homestead exemption conform to Section 1476 of the Code of Civil Procedure, which provides that no interference in probate shall be made with the homestead, if the value thereof did not exceed the homestead exemption when the declaration was filed. The rule, as laid down in Section 1476 of the Code of Civil Procedure, is deemed preferable to that now existing in the Civil Code in this regard, because it is believed that the policy of the law should encourage the improvement and beautifying of homes, by including any increase in value thereto in the homestead exemption, provided the premises do not exceed in value the homestead exemption at the time of the homestead declaration.

SECTION 1251. To be amended to read as follows:

Sec. 1251. They must view the premises, and ascertain and appraise the present value thereof, and also ascertain and appraise the value thereof at the time the same was selected as a homestead, and if its present value exceeds the homestead exemption, and its value exceeded such exemption at the time it was selected, they must determine whether the land claimed can be divided without material injury.

NOTE.—This amendment conforms with that proposed to Section 1246.

SECTION 1253. To be amended to read as follows:

Sec. 1253. If, from the report, it appears to the judge that the present value of the homestead exceeds, and at the time the same was selected exceeded, the homestead exemption, and that the land claimed can be divided without material injury, he must, by an order, direct the appraisers to set off to the claimant so much of the land, including the residence, as will amount in value to the homestead exemption. The appraisers must, within ten days after the making of such order, make to the judge, in writing, a report, which report must show what action they have taken thereunder. Upon the application of the petitioner, upon at least three days' notice to the homestead claimant, the judge shall consider such report and make an order confirming or rejecting the same. If the report is confirmed, the execution may be enforced against the remainder of the land.

SECTION 1254. To be amended to read as follows:

Sec. 1254. If, from the report mentioned in section twelve hundred and fifty-two of this Code, it appears to the judge that the land claimed exceeds in value the amount of the homestead exemption, and exceeded such amount when the homestead was declared, and that it cannot be divided, he must make an order directing its sale under the execution.

SECTIONS 1258 and 1259 to be incorporated in one section, to read as follows:

Sec. 1258. The court must fix the compensation of the appraisers, not to exceed five dollars per day each for the time actually engaged, and the execution creditor must pay the costs of these proceedings in the first instance; but in the cases provided for in sections twelve hundred and fifty-three and twelve hundred and fifty-four, the amount so paid must be added as costs on execution and collected accordingly.

NOTE.—These two sections are proposed to be consolidated to allow a number for the following proposed new section.

SECTION 1259. A new section to be added to read as follows:

Insurance money on homestead protected.

Sec. 1259. Money paid upon a loss under a policy of fire insurance upon any portion of the homestead is entitled, for a period of six months after such payment, to the same protection against legal process and the voluntary disposition of the husband which the law gives to the homestead; and any building constructed or as repaired with the proceeds of such fire insurance shall constitute a part of the homestead in the same manner as if the same had been upon the land when the declaration of homestead was filed.

SECTION 1261. To be amended to read as follows:

Sec. 1261. The phrase "head of a family," as used in this title, includes within its meaning:

1. The husband, when the claimant is a married person;
2. Every person who has residing on the premises with him or her, and under his or her care and maintenance: either, 1. His or her minor child, or minor grandchild, or the minor child of his or her deceased wife or husband; 2. A minor brother or sister, or the minor child of a deceased brother or sister; 3. A father, mother, grandfather, or grandmother; 4. The father, mother, grandfather, or grandmother of a deceased husband or wife; 5. An unmarried sister, or any other of the relatives mentioned in this section, who have attained the age of majority, and are unable to take care of or support themselves; *provided*, that whenever the claimant ceases to be the head of a family, as defined in this section, the amount of the homestead exemption under any declaration of homestead theretofore filed by such person, shall not exceed one thousand dollars.

SECTION 1266. A new section to be added to Chapter II, Title V, Part IV, Division II, to read as follows:

Alienation of homestead in certain cases.

Sec. 1266. In case of a homestead, if either the husband or wife shall become hopelessly insane, and a guardian of such insane spouse

has been duly appointed by a Superior Court, upon application of the husband or wife not insane to the Superior Court of the county in which said homestead is situated, and upon due proof of such insanity and the appointment of a guardian of such insane spouse, the court may make an order permitting the husband or wife not insane to join with such guardian in a sale or mortgage of such homestead or any part, thereof. A notice of the application for such order shall be given by publication of such notice in a newspaper published in the county in which such homestead is situated, if there be a newspaper published therein, once each week for three successive weeks, prior to the hearing of such application, and a copy of such notice shall also be served upon the nearest male relative resident in this State and upon the guardian of such insane husband or wife, at least three weeks prior to such application; and in case there be no such male relative known to the applicant, a copy of such notice shall be served upon the District Attorney of the county in which such homestead is situated; and it is hereby made the duty of such District Attorney, upon being served with a copy of such notice, to appear in court, and see that such application is made in good faith, and that the proceedings thereon are fairly conducted.

SECTION 1267. A new section to be added to Chapter II, Title V, Division I, to read as follows:

Petition for order allowing alienation of homestead.

Sec. 1267. Thirty days before the hearing of any application under the provisions of the foregoing section, the applicant shall present and file in the court in which such application is to be heard a petition for the order mentioned in the preceding section, subscribed and sworn to by the applicant, setting forth the name and age of the insane husband or wife; a description of the premises constituting the homestead; the value of the same; the county in which it is situated; and such facts in addition to the insanity of the husband or wife, and relating to the circumstances or necessities of the applicant and his or her family, as shall demonstrate the necessity of such sale or mortgage.

SECTION 1268. A new section to be added to Chapter II, Title V, Part IV, Division II, to read as follows:

Order allowing alienation of homestead, and effect thereof.

Sec. 1268. If the court shall make the order provided for in section twelve hundred and sixty-six of this Code, the same shall require the proceeds of such sale or the amount received by virtue of the mortgage of said homestead to be paid to the general guardian of the insane spouse, and the order shall be entered upon the minutes of the court, and thereafter, any sale, conveyance, or mortgage made in pursuance

of such order shall be as valid and effectual as if the property affected thereby were the absolute property, in fee simple, of the spouse joining in such conveyance or mortgage.

NOTE.—The three foregoing proposed sections contain the provisions of an Act to enable certain parties therein named to alienate or incumber homesteads, approved March 25, 1874, with the exception that it is proposed to change the scope of the Act so as to require the money realized from a sale or mortgage under the order to be paid to the general guardian of the estate of the insane spouse, who can thereafter disburse the same under the rules of law applicable to the particular case, and make it the duty of the District Attorney of the county where such applications are made to appear, and see that applications therefor are made in good faith, instead of the Public Administrator, as provided in the said Act.

SECTIONS 1266, 1267, 1268, and 1269 to be incorporated in one section, to be Section 1269, Chapter III, Title V, Part IV, Division II, to read as follows:

Mode of selection and effect of filing for record the declaration of homestead.

Sec. 1269. Any person, other than the head of a family, in the selection of a homestead, must execute and acknowledge, in the same manner as a grant of real property is acknowledged, a "declaration of homestead." The declaration must contain everything required by the second, third, and fourth subdivisions of section twelve hundred and sixty-three of this Code, and must be recorded in the office of the County Recorder of the county in which the land is situated. From and after the time the declaration is so filed for record, the land described therein is a homestead.

NOTE.—The present Sections 1266, 1267, 1268, and 1269 are consolidated in the proposed new Section 1269, so as to allow numbers in the preceding chapter for the proposed sections containing the provisions of the Act in relation to the alienation of homesteads in certain cases.

SECTION 1283. To be amended to read as follows:

Witness, who is devisee, rights of.

Sec. 1283. If a witness, to whom any beneficial devise, legacy, or gift, void by the preceding section, is made, would have been entitled to any share of the estate of the testator, in case the will should not be established, he succeeds to so much of the share as would be distributed to him, not exceeding the devise or bequest made to him in the will, and he is entitled to receive the same, on distribution, of the other devisees or legatees named in the will, in proportion to and out of the parts devised or bequeathed to them.

NOTE.—The change in the section is that the witness, who is a devisee, shall be entitled to receive his proper share of the estate upon distribution.

SECTION 1299. To be amended to read as follows:

Effect of marriage of a man on his will.

Sec. 1299. If, after making a will, the testator marries, and the wife survives the testator, the will is revoked, unless provision has been made for her by written contract, made before or after her marriage, by the testator, or unless she is provided for in the will, or in such way mentioned therein as to show an intention not to make such provision; and no other evidence to rebut the presumption of revocation must be received.

SECTION 1313. To be amended to read as follows:

Restriction on power to devise to charitable uses.

Sec. 1313. No estate, real or personal, shall be bequeathed or devised to any charitable or benevolent society, or corporation, or to any person or persons in trust for charitable uses, except the same be done by will duly executed at least thirty days before the decease of the testator; and if so made, at least thirty days prior to such death, such devise or legacy, and each of them, shall be valid; *provided*, that no such devise or bequests shall collectively exceed one third of the distributable estate of the testator leaving legal heirs, and in such case a pro rata deduction from such devises or bequests shall be made so as to reduce the aggregate thereof to one third of such estate; and all dispositions of property made contrary hereto shall be void, and go to the residuary legatee or devisee, next of kin, or heirs according to law.

NOTE.—The amendment to this section consists in adding the word “distributable” before estate, thereby making it clear that no more than one third of an estate of a testator after the payment of the debts and expenses of administration can be bequeathed to charity.

SECTION 1350. To be amended to read as follows:

Sec. 1350. A devise or legacy given to more than one person vests in them as owners in common, unless a contrary intent appears.

SECTION 1360. To be amended to read as follows:

Sec. 1360. The property of a testator, except as otherwise specially provided in this Code and the Code of Civil Procedure, must be resorted to for the payment of legacies in the following order:

1. The property which is expressly appropriated by the will for the payment of the legacies;
2. Property not disposed of by the will;
3. Property which is devised or bequeathed to a residuary legatee;
4. Property which is not specifically devised or bequeathed.

NOTE.—The amendment consists in the addition of the word “not” before “specifically devised” in Subdivision 4.

SECTION 1361. To be amended to read as follows:

Sec. 1361. Legacies to husband, widow, or kindred of any class are chargeable for debts only after legacies to persons not related to the testator.

SECTION 1384. To be amended to read as follows:

Succession to estates of intestate.

Sec. 1384. The property, both real and personal, of one who dies without disposing of it by will, passes to the heirs of the intestate, subject to the control of the Superior Court, and to the possession of any administrator appointed by that court, for the purposes of administration.

NOTE.—The amendment changes Probate Court to Superior Court.

SECTION 1405. To be amended to read as follows:

Sec. 1405. When succession is not claimed as provided in the preceding section, the Superior Court, on information, must direct the Attorney-General to reduce the property to his or the possession of the State, or to cause the same to be sold, and the same or the proceeds thereof to be deposited in the state treasury for the benefit of such non-resident foreigner, or his legal representative, to be paid to him whenever, within five years after such deposit, he appears and obtains a judgment or order of such Superior Court that he is entitled to succeed thereto.

SECTION 1411. To be amended to read as follows:

Sec. 1411. The appropriation must be for some useful or beneficial purpose, and when the appropriator or his successor in interest ceases to use it for such a purpose for three years the right ceases.

NOTE.—*Smith vs. Hawkins*, 110 Cal. 122, decides that five years' non-user is required to work a forfeiture. The amendment places the requisite time of non-user at three years.

SECTION 1572. To be amended to read as follows:

Sec. 1572. Actual fraud, within the meaning of this chapter, consists in any of the following acts committed by a party to the contract, or with his connivance, with intent to deceive another party thereto, or to induce him to enter into the contract:

1. The suggestion, as a fact, of that which is not true, by one who does not believe it to be true;

2. The positive assertion, in a manner not warranted by the information of the person making it, of that which is not true, though he believes it to be true;

3. The suppression of that which is true, by one having knowledge or belief of the fact, and which it is his duty to disclose;

4. A promise made without any intention of performing it; or,
5. Any other act fitted to deceive.

NOTE.—The amendment makes the suppression of that which is true by one having knowledge or belief of the fact fraudulent only when it is his duty to disclose such fact, and conforms the section to the definition of deceit in Section 1710.

SECTION 1917. To be amended to read as follows:

Sec. 1917. Unless there is an express contract in writing, fixing a different rate, interest is payable on all moneys at the rate of six per cent per annum after they become due, on any instrument of writing, except a judgment, and on moneys lent, or due on any settlement of account, from the day on which the balance is ascertained, and on moneys received to the use of another and detained from him. In the computation of interest for a period less than a year, three hundred and sixty days are deemed to constitute a year.

NOTE.—The amendment reduces the rate of legal interest from seven per cent to six per cent per annum.

SECTION 2207. To be amended to read as follows:

Sec. 2207. A carrier of messages by telegraph or telephone must, if it is practicable, transmit every such message immediately upon its receipt. But if this is not practicable, and several messages accumulate upon his hands, he must transmit them in the following order:

1. Messages from public agents of the United States or of this State, on public business;
2. Messages intended in good faith for immediate publication in newspapers, and not for any secret use;
3. Messages giving information relating to the sickness or death of any person;
4. Other messages in the order in which they were received.

SECTION 2208. To be amended to read as follows:

Sec. 2208. A common carrier of messages, otherwise than by telegraph or telephone, must transmit messages in the order in which he receives them, except messages from agents of the United States or of this State, on public business, to which he must always give priority. But he may fix upon certain times for the simultaneous transmission of messages previously received.

SECTION 2310. To be amended to read as follows:

Sec. 2310. A ratification can only be made in the manner that would have been necessary to confer an original authority for the act ratified, or by accepting or retaining the benefit of the act, without inquiry or with a full knowledge of the material facts thereof.

NOTE.—The amendment permits a ratification of an act which can only be authorized in writing where the principal accepts or receives the benefit without inquiry or a full knowledge of the material facts.

SECTION 2343. To be amended to read as follows:

Sec. 2343. One who assumes to act as an agent is responsible to third persons as a principal for his acts in the course of his agency, in any of the following cases, and in no others:

1. When, with his consent, credit is given to him personally in a transaction;
2. When his acts are wrongful in their nature.

NOTE.—The amendment eliminates from the section the second subdivision thereof, which provides that when an agent enters into a written contract, in the name of his principal, without believing in good faith that he has authority therefor, he is responsible as a principal. There is no doubt of his liability, in the case supposed, for all damages resulting therefrom. To hold him liable as principal in such a case, as has been well said in *Hall vs. Crandall*, 29 Cal. 567, is rather to make a new contract for the parties, than to construe the one they have made for themselves.

SECTION 2355. To be amended to read as follows:

Sec. 2355. An agency is terminated, as to every person having notice thereof, by:

1. The expiration of its term;
2. The extinction of its subject;
3. The death of the agent;
4. His renunciation of the agency; or,
5. The incapacity of the agent to act as such.

NOTE.—The amendment changes the word "agency" to "agent" in the fifth subdivision of the section.

SECTION 2356. To be amended to read as follows:

Sec. 2356. Unless the power of an agent is coupled with an interest in the subject of the agency, it is terminated by:

1. Its revocation by the principal, as to every person having notice thereof;
2. The death of the principal;
3. His incapacity to contract.

NOTE.—The amendment terminates the power of an agent, in the cases mentioned, irrespective of the kind of notice thereof. This is the undoubted rule of the common law. (*Meecham on Agency*, Sec 245.) It is assumed to be in force in California in the decision of *Lowrie vs. Salz*, 75 Cal. 349, and in several other cases.

SECTION 2553. To be amended to read as follows:

Sec. 2553. Except in the cases specified in the next four sections, and in the cases of fire, life, accident, and health insurance, a change of interest in any part of a thing insured, unaccompanied by a corresponding change of interest in the insurance, suspends the insurance to an equivalent extent, until the interest in the thing and the interest in the insurance are vested in the same person.

NOTE.—The amendment removes fire insurance policies from the operation of the section, inasmuch as such policies are to be of the standard form provided in the Political Code.

SECTION 2587. To be amended to read as follows:

Sec. 2587. A policy of insurance, other than a policy of fire or marine insurance, must specify:

1. The parties between whom the contract is made;
2. The rate of premium;
3. The property or life insured;
4. The interest of the insured in property insured, if he is not the absolute owner thereof;
5. The risks insured against; and,
6. The period during which the insurance is to continue.

SECTION 2610. To be amended to read as follows:

Sec. 2610. A breach of warranty exonerates an insurer from the time that it occurs; or, where it is broken in its inception, prevents the policy from attaching to the risk.

SECTION 2611. To be amended to read as follows:

Sec. 2611. The violation of a material provision of a policy on the part of either party entitles the other to rescind.

SECTION 2612. To be amended to read as follows:

Sec. 2612. A policy may declare that a violation of a specified provision thereof shall avoid it; otherwise, the breach of an immaterial provision shall not have that effect.

SECTION 2949. A new section to be added to read as follows:

Sale under power in mortgages or trust deeds.

Sec. 2949. Whenever a sale of real property is made under a power of sale contained in a mortgage or deed of trust intended for the security of a debt, such sale shall be subject to redemption by the person who executed the mortgage or deed of trust, or his heirs, executors, administrators, or assigns. Such redemption may be made at any time within six months after the date of the sale by paying or tendering to the purchaser at such sale, or his heirs, executors, administrators, or assigns, the amount paid at such sale, with interest thereon from the date of such sale to the time when the redemption is made, at the rate of one per cent per month. Any person may become a purchaser at a sale under a power of sale mentioned in this chapter.

NOTE.—The amendment is desirable inasmuch as it has always been the policy of the law to avoid a strict foreclosure of mortgage which can be, and is often had in California, under powers of sale contained in deeds of trust and mortgages.

SECTION 3001. To be amended to read as follows:

Sec. 3001. Before property pledged can be sold, and after performance of the act for which it is security is due, the pledgee must demand

performance thereof from the debtor, if the debtor can be found within the State by the exercise of reasonable diligence.

SECTION 3002. To be amended to read as follows:

Sec. 3002. A pledgee must give actual notice to the pledgor of the time and place at which the property pledged will be sold, at least twenty days before the sale, if the pledgor can, by the exercise of reasonable diligence, be found within the State; otherwise, publication of notice of such sale for two weeks in a newspaper published in the county where the property was pledged, and posting the notice in three public places in said county twenty days before the sale, shall be equivalent, when the publication is complete, to actual notice to the pledgor of the time and place at which the property pledged will be sold.

NOTE.—The amendments to the two preceding sections excuse demand of performance and actual notice to the pledgor of the time and place of sale, when he cannot with reasonable diligence be found within the State, and provide for constructive notice of the time and place of the sale in such cases.

SECTION 3006. To be amended to read as follows:

Sec. 3006. A pledgee cannot sell any evidence of debt pledged to him except the obligations of governments, states, or corporations, but must use ordinary diligence and skill in the collection of the same, when due.

SECTION 3101. To be amended to read as follows:

Sec. 3101. An instrument, otherwise negotiable in form, payable to a person named, but with the words added, "or to his order," or "to bearer," or words equivalent thereto, is in the former case payable to the written order thereon of such person, and in the latter case payable to the bearer.

NOTE.—This amendment adds "thereon" after "written order" in the section, and is designed to make it clear that the writing affecting a negotiable instrument must be upon the instrument itself.

SECTION 3131. To be amended to read as follows:

Sec. 3131. Presentment of a negotiable instrument for payment, when necessary, must be made as follows, as nearly as by reasonable diligence it is practicable:

1. The instrument must be presented by the holder, or by his agent;
2. The instrument must be presented to the principal debtor, if he can be found at the place where presentment should be made; and if not, then it must be presented to some other person having charge thereof, or employed therein; if the principal debtor cannot be found at the place where presentment should be made, and if no person is found having charge thereof, or employed therein, presentment is excused;
3. An instrument which specifies a place for its payment must be presented there; and if the place specified includes more than one house,

then at the place of residence or business of the principal debtor, if it can be found therein;

4. An instrument which does not specify a place for its payment must be presented at the place of residence or business of the principal debtor, or wherever he may be found, at the option of the presentor;

5. The instrument must be presented upon the day of its maturity, or, if it be payable on demand, it may be presented upon any day. It must be presented within reasonable hours; and if it be payable at a banking-house, within the usual banking hours of the vicinity, but, by the consent of the person to whom it should be presented, it may be presented at any hour of the day;

6. If the principal debtor have no place of business or residence within the State, or if his place of business or residence within the State cannot, with reasonable diligence, be ascertained, presentment for payment is excused.

NOTE.—The amendment allows the instrument to be presented by an agent of the holder; enacts that if the principal debtor cannot be found at the place of presentment, and no person is found having charge thereof, or employed therein, and if he have no place of business or residence in the State, presentment for payment is excused.

SECTION 3151. To be amended to read as follows:

Sec. 3151. A notice of the dishonor of a negotiable instrument, if valid in favor of the party giving it, inures to the benefit of the holder thereof, and of all other parties thereto who have given notice of dishonor as provided in the preceding section.

NOTE.—The present section makes a notice of dishonor inure to the benefit of the parties "whose right to give the like notice has not then been lost." Under this phraseology the notice, when given by the second indorser to the first indorser, would not inure to the benefit of a sixth indorser who might have succeeded under Section 3150, because his right to notify the first indorser would *then* be lost, because more than one day would have elapsed by reason of the successive notices.

SECTIONS 3400 and 3401 to be repealed.

NOTE.—Section 3399 fully states the law as to the judicial revision of contracts, and it is deemed expedient to repeal Sections 3400 and 3401, as they tend to hamper the courts in the decision of such cases.

SECTION 3440. To be amended to read as follows:

Sec. 3440. Every transfer of personal property, other than a thing in action or a ship or cargo at sea or in a foreign port, and every lien thereon, other than a mortgage when allowed by law and a contract of bottomry or respondentia, is conclusively presumed, if made by a person having at the time the possession or control of the property, and not accompanied by an immediate delivery, and followed by an actual and continued change of possession of the things transferred, to be fraudulent and therefore void against those who are his creditors while

he remains in possession and the successors in interest of such creditors, and against any persons on whom his estate devolves in trust for the benefit of others than himself, and against purchasers or incumbrancers in good faith subsequent to the transfer; *provided, however*, that the provisions of this section shall not apply to the transfers of wines in the wineries or wine-cellars of the makers or owners thereof, or other persons having possession, care, and control of the same, and the pipes, casks, and tanks in which the said wines are contained, which transfers shall be made in writing, and certified and acknowledged and verified in the same form as provided for chattel mortgages, and which shall be recorded in the book of miscellaneous records in the office of the County Recorder of the county in which the same are situated; *provided, further*, that every transfer of personal property, by husband to wife, and used by them in common, is conclusively presumed to be fraudulent and therefore void under this section, unless at the time of such transfer of such property the same is described in an inventory of the wife's separate property, made and recorded as provided in section one hundred and sixty-five of this Code.

NOTE.—The amendment to this section makes any transfer of personal property by the husband to the wife, used in common by them, void, unless an inventory thereof as the separate property of the wife is at the same time filed, as provided in Section 165.

PROPOSED AMENDMENTS TO THE CODE OF CIVIL PROCEDURE.

SECTION 11. To be repealed.

NOTE.—All of the provisions of this section are contained in Section 10 of this Code.

SECTION 66. To be amended to read as follows:

Sec. 66. In the County of Los Angeles there shall be elected six judges of the Superior Court; in the County of Alameda there shall be elected four judges of the Superior Court; in the County of Sacramento there shall be elected three judges of the Superior Court; in each of the counties of Fresno, Humboldt, San Joaquin, Santa Clara, Sonoma, San Bernardino, and San Diego, there shall be elected two judges of the Superior Court; and in each of said counties, and in any county, or city and county, other than the City and County of San Francisco, in which there shall be more than one judge of the Superior Court, the judges of such court may hold as many sessions of said court at the same time as there are judges thereof, and shall apportion the business among themselves as equally as may be.

NOTE.—The amendment of this section designates the number of judges in the different counties, as changed by Acts passed subsequent to the enactment of the section.

SECTION 248. A new section to be added to Article X, Chapter II, Title III, Part I, to read as follows:

Fees of jurors in civil cases—how paid.

Sec. 248. The fees of the jury in civil cases shall be paid by the prevailing party at the conclusion of the trial before the jury is discharged, and no judgment shall be entered on the verdict of the jury until such fees are paid. If the prevailing party shall refuse or neglect to pay the jury fees as above provided, the court shall enter an order that the amount of such fees (stating it) shall be paid into court by the prevailing party, and execution may be issued thereon as upon a judgment. If such fees are not paid or collected within five days after the discharge of the jury, the fees of the jury shall be paid by the county in which the action was tried, as in criminal cases. The amount paid by the

county must be refunded whenever paid by, or collected from, the prevailing party in the action. It shall be the duty of the District Attorney of the county to attend to the collection, for the benefit of the county, of all jury fees ordered to be paid into court under this section.

NOTE.—The scope of the section is to allow the trial by jury in all proper cases when demanded, irrespective of the question whether the party demanding it is able to advance such fees.

SECTION 269. To be amended to read as follows:

Sec. 269. The judge or judges of any Superior Court in the State may appoint a competent phonographic reporter, or as many such reporters as there are judges, to be known as official reporter or reporters of such court, and to hold office during the pleasure of the judge or judges appointing them. Such reporter, or any of them, where there are two or more, shall, at the request of either party, or of the court, in a civil action or proceeding, and on the order of the court, the District Attorney, or of the attorney for defendant in a criminal action or proceeding, take down, in shorthand, all the testimony, the objections made, the rulings of the court, the exceptions taken, the oral instructions given, and any statement made by counsel, or any other person, and, if directed by the court, or requested by either party, shall, within such reasonable time after the trial of such case as the court may designate, write out the same in plain, legible long-hand or typewriting, and verify and file it with the clerk of the court in which the case was tried.

SECTION 274. To be amended to read as follows:

Sec. 274. The official reporter shall receive for attendance on court and reporting, a monthly salary, payable one half by the State and one half by the county, at the same time and in the same manner as the salaries of the judges of the Superior Court; and for transcription he shall receive fees, payable, in criminal cases, by the county, and in civil cases by the party ordering the same, or, where ordered by the court, by either or both parties, as the court may direct. Said monthly salary shall be as follows: In counties of the first, second, and third classes, one hundred and seventy-five dollars; in counties of the fourth to the twelfth class, both inclusive, one hundred and sixty dollars; in counties of the thirteenth to the twenty-ninth class, both inclusive, one hundred and fifty dollars; in counties of the thirtieth to the thirty-ninth class, both inclusive, one hundred and twenty-five dollars; in counties of the fortieth to the forty-ninth class, both inclusive, seventy-five dollars; in counties of all the remaining classes, fifty dollars. Said fees for transcription shall be ten cents per folio of one hundred words for the original, and five cents per folio of one hundred words for each copy; *provided*, that where the reporter is required to transcribe the

whole, or any part, of the testimony during the progress of the trial, he shall be entitled to receive twenty cents per folio for the original and ten cents for each copy. Where there is no regularly appointed official reporter, and the judge temporarily appoints one to report a case, such reporter shall receive ten dollars per day for reporting and the same fees for transcription as are allowed regular reporters, by this section, and in addition his actual traveling expenses where not a resident of the county.

SECTION 335, of Chapter III, Title II, Part II, to be Section 334 of said chapter.

SECTION 335. A new section to be added to read as follows:

Sec. 335. Within six years: All actions of tort, except those herein-after mentioned.

NOTE.—“The statutes of limitation of the several States apply to actions at law for the infringement of letters-patent.” (*Campbell vs. Haverhill*, 155 U. S. 610.) There is no Federal statute or section of the Codes which applies to such actions. The object of the foregoing amendment is to supply such an enactment.

SECTION 337. To be amended to read as follows:

Sec. 337. Within four years:

1. An action upon any contract, obligation, or liability, founded upon an instrument in writing;
2. An action against a stockholder of a corporation to enforce a liability created by law.

NOTE.—This amendment, together with the one proposed to Section 359, will make the statute of limitations four years upon an action to recover upon a stockholder's liability, instead of three years after the discovery, by the aggrieved party, of the facts upon which the liability was created.

SECTION 339. To be amended to read as follows:

Sec. 339. Within two years:

1. An action upon a contract, obligation, or liability, not founded upon an instrument in writing;
2. An action against a Sheriff, Coroner, or Constable, upon a liability incurred by the doing of an act in his official capacity, and in virtue of his office, or by the omission of an official duty, including the non-payment of money collected upon an execution; but this subdivision does not apply to an action for an escape;
3. An action to recover damages for the death of one caused by the wrongful act or neglect of another.

NOTE.—The amendment to the last two sections will make the period of limitation four years for actions upon written instruments, whether executed within or without the State.

SECTION 359. To be amended to read as follows:

Sec. 359. The preceding sections of this title do not affect actions against directors or stockholders of a corporation to recover a penalty or forfeiture imposed; but such actions must be brought within three years after the discovery by the aggrieved party of the facts upon which the penalty or forfeiture attached.

SECTION 383. To be amended to read as follows:

Sec. 383. Persons severally liable upon the same obligation or instrument, including the parties to bills of exchange and promissory notes, and sureties on the same or separate instruments, may all or any of them be included in the same action, at the option of the plaintiff; and all or any of them may join as plaintiffs in the same action, concerning or affecting the obligation or instrument upon which they are severally liable.

SECTION 389. To be amended to read as follows:

Sec. 389. The court may determine any controversy between parties before it, when it can be done without prejudice to the rights of others, or by saving their rights; but when a complete determination of the controversy cannot be had without the presence of other parties, the court must then order them to be brought in, and to that end may order amended and supplemental pleadings, or a cross-complaint to be filed, and summons thereon to be issued and served. And when, in an action for the recovery of real or personal property, a person, not a party to the action, but having an interest in the subject thereof, makes application to the court to be made a party, it may order him to be brought in, by the proper amendment.

SECTION 396. To be amended to read as follows:

Sec. 396. If the county in which the action is commenced is not the proper county for the trial thereof, the action may, notwithstanding, be tried therein, unless the defendant, at the time he appears and answers or demurs, files an affidavit of merits, and a notice of motion that the trial be had in the proper county.

NOTE.—The amendment does away with demands in writing that the trial be had in the proper county, and substitutes therefor a notice of motion.

SECTION 407. To be amended to read as follows:

Sec. 407. The summons must be directed to the defendant, signed by the clerk, and issued under the seal of the court, and must contain:

1. The names of the parties to the action, the court in which it is brought, and the county in which the complaint is filed;
2. A direction that the defendant appear and answer the complaint

within ten days, if the summons is served within the county in which the action is brought; within thirty days, if served elsewhere;

3. A notice that, unless the defendant so appears and answers, the plaintiff will take judgment for any money or damages demanded in the complaint as arising upon contract, and will apply to the court for any other relief demanded in the complaint.

NOTE.—This amendment will simplify the form of a summons, inasmuch as the summons is served by delivering a copy of the complaint in all cases other than by publication. When publication of the summons is ordered, under the proposed amendment to Section 413, *infra*, the court must order the summons, and a copy of the prayer of the complaint in the action, to be published, which will give the defendant sufficient notice of the nature of the action.

SECTION 408. To be amended to read as follows:

Sec. 408. If the summons is returned without being served on any or all of the defendants, or if it has been lost, the clerk, upon the demand of the party causing the issuance of such summons in the first instance, may issue an alias summons in the same form as the original; *provided*, that no such alias summons shall be issued after the expiration of one year from the date of the filing of the pleading on which it is sought to have such alias summons issued.

SECTION 410. To be amended to read as follows:

Sec. 410. The summons may be served by the Sheriff of the county where the defendant is found, or by any other person over the age of eighteen years, not a party to the action. A copy of the complaint or cross-complaint upon which the summons was issued, must be served with the summons upon each of the defendants affected thereby. When the summons is served by the Sheriff, it must be returned, with his certificate of its service and of the service of a copy of the pleading on which such summons was issued, to the office of the clerk from which it was issued. When it is served by any other person, it must be returned to the same place, with an affidavit of such person of its service and of the service of a copy of the pleading on which it was issued.

SECTION 412. To be amended to read as follows:

Sec. 412. Where the person on whom service is to be made resides out of the State; or has departed from the State; or cannot, after due diligence, be found within the State; or conceals himself to avoid the service of summons; or is a foreign corporation having no managing or business agent, cashier, or secretary within the State, and the fact appears by affidavit, or by a verified pleading on file, that a cause of action exists against the defendant in respect to whom the service is to be made, or that he is a necessary or proper party to the action; or when it appears by such affidavit, or by the complaint or other verified pleading on file therein,

that it is an action which relates to, or the subject of which is, real or personal property in this State, in which such person defendant, or foreign corporation defendant, has or claims a lien or interest, actual or contingent, therein, or in which the relief demanded consists wholly or in part in excluding such person or foreign corporation from any interest therein, such court or judge may make an order that the service be made by the publication of the summons.

SECTION 413. To be amended to read as follows:

Sec. 413. The order must direct the publication of the summons and of the prayer of the complaint or cross-complaint on which said summons has been issued, to be made in a newspaper, to be designated as most likely to give notice to the person to be served, and for such length of time as may be deemed reasonable, at least once a week; but publication against a defendant residing out of the State, or absent therefrom, must not be less than two months. In case of publication, where the residence of a non-resident or absent defendant is known, the court or judge must direct a copy of the summons and complaint or cross-complaint on which the summons has been issued to be forthwith deposited in the post office, directed to the person to be served, at his place of residence. When publication is ordered, personal service of a copy of the summons and complaint or cross-complaint, as the case may be, out of the State, is equivalent to publication and deposit in the post office; and in either case the service of the summons is complete at the expiration of the period of publication prescribed by the order directing the publication.

SECTION 414. To be amended to read as follows:

Sec. 414. When the cause of action stated by the complaint or cross-complaint is against two or more defendants jointly or severally liable on a contract, and the summons is served on one or more, but not on all of them, the plaintiff or cross-complainant, as the case may be, may proceed against the defendants served, in the same manner as if they were the only defendants.

SECTION 415. To be amended to read as follows:

Sec. 415. Proof of the service of summons and complaint or cross-complaint, as the case may be, must be as follows:

1. If served by the Sheriff, his certificate thereof;
2. If by any other person, his affidavit thereof; or,
3. In case of publication, the affidavit of the printer, or his foreman, or principal clerk, showing the same in accordance with the order therefor; and an affidavit of a deposit of a copy of the summons and complaint or cross-complaint, as the case may be, in the post office, if the same has been deposited; or,

4. The written admission of the defendant.

In case of service otherwise than by publication, the certificate or affidavit must state the time and place of service.

SECTION 416. To be amended to read as follows:

Sec. 416. From the time of the service of the summons and of a copy of the complaint or cross-complaint in a civil action, or of the completion of the publication, when service by publication is ordered, the court is deemed to have acquired jurisdiction of the parties and to have control of all the subsequent proceedings. The voluntary appearance of a defendant is equivalent to personal service of the summons and a copy of the complaint or cross-complaint, as the case may be, upon him.

SECTION 427. To be amended to read as follows:

Sec. 427. The plaintiff may unite several causes of action in the same complaint where they all arise out of:

1. Contracts, express or implied;
2. Claims to recover specific real property, with or without damages for the withholding thereof, or for waste committed thereon, and the rents and profits of the same;
3. Claims to recover specific personal property, with or without damages for the withholding thereof;
4. Claims against a trustee by virtue of a contract, or by operation of law;
5. Injuries to property;
6. Injuries to character and person.

The causes of action so united must all belong to one only of these classes, and must affect all the parties to the action, and not require different places of trial, and must be separately stated.

NOTE.—The amendment allows all causes of action for injuries to the character and person to be united, being separately stated in the complaint.

SECTION 434. To be amended to read as follows:

Sec. 434. If no objection be taken, either by demurrer or answer, or if a demurrer specifying an objection be overruled for want of prosecution or presentment, the defendant must be deemed to have waived the same, excepting only the objection to the jurisdiction of the court and the objection that the complaint does not state facts sufficient to constitute a cause of action.

NOTE.—The amendment is that any ground of special demurrer must be deemed waived, although the defendant demurs on that ground, unless he prosecutes his demurrer with due diligence.

SECTION 442. To be amended to read as follows:

Sec. 442. Whenever the defendant seeks affirmative relief against any party, relating to or depending upon the contract or transaction

upon which the action is brought, or affecting the property to which the action relates, he may, in addition to his answer, file at the same time, or by permission of the court subsequently, a cross-complaint. New parties may be brought into the action by cross-complaint. The cross-complaint must be served upon the parties affected thereby, and such parties may demur or answer thereto as to the original complaint. Summons may be issued upon a cross-complaint as upon the original complaint.

NOTE.—The amendment provides for the issuance of a summons upon a cross-complaint, and also conforms the section to the decision in *Winter vs. McMillan*, 87 Cal. 256, by allowing new parties to be brought in by a cross-complaint.

SECTION 446. To be amended to read as follows:

Sec. 446. Every pleading must be subscribed by the party or his attorney; and when the complaint is verified, or when the State, or any officer of the State, in his official capacity, is plaintiff, the answer must be verified, unless an admission of the truth of the complaint might subject the party to a criminal prosecution, or unless an officer of the State, in his official capacity, is defendant. In all cases of a verification of a pleading, the affidavit of the party must state that the same is true of his own knowledge, except as to the matters which are therein stated on his information or belief, and as to those matters, that he believes it to be true; and where a pleading is verified, it must be by the affidavit of a party, unless the parties are absent from the county where the attorney resides, or from some cause unable to verify it, or the facts are within the knowledge of his attorney, or other person verifying the same. When the pleading is verified by the attorney, or any other person, except one of the parties, he must set forth in the affidavit the reasons why it is not made by one of the parties, and state therein that the same is true of his own knowledge, or that he believes it to be true. When a corporation is a party, the verification may be made by any officer thereof.

NOTE.—The amendment requires that where the verification is made by a person other than one of the parties, the affidavit must state that the same is true of affiant's own knowledge, or that he believes it to be true.

SECTION 540. To be amended to read as follows:

Sec. 540. The writ must be directed to the Sheriff of any county in which property of such defendant may be, and must require him to attach and safely keep all the property of such defendant within his county, not exempt from execution, or so much thereof as may be sufficient to satisfy the plaintiff's demand, the amount of which must be stated in conformity with the complaint, unless the defendant give him security by the undertaking of at least two sufficient sureties, in an amount sufficient to satisfy such demand, besides costs, or in an amount

equal to the value of the property which has been, or is about to be, attached; in which case to take such undertaking. No recovery shall be had against the sureties on such undertaking, neither shall any recovery be had against the Sheriff by reason of any failure to levy the writ on such property, if the court in which the writ of attachment was issued, or the appellate court, shall discharge the same on the ground that it was improperly or irregularly issued, or if the plaintiff fail to recover judgment against the defendant furnishing such undertaking. Several writs may be issued at the same time to the Sheriffs of different counties.

NOTE.—The amendment permits no recovery on the bond if the attachment is afterward dissolved as improperly issued, or if the plaintiff fails to recover judgment against the particular defendant furnishing such bond.

SECTION 542. To be amended to read as follows:

Sec. 542. The Sheriff to whom the writ is directed and delivered must execute the same without delay, if the undertaking mentioned in section five hundred and forty be not given, as follows:

1. Real property, standing upon the records of the county in the name of the defendant, must be attached, by filing with the Recorder of the county a copy of the writ, together with a description of the property attached, and a notice that it is attached; and by leaving a similar copy of the writ, description, and notice with an occupant of the property, if there is one; if not, then by posting the same in a conspicuous place on the property attached;

2. Real property, or an interest therein, belonging to the defendant, and held by any other person, or standing on the records of the county in the name of any other person, must be attached, by filing with the Recorder of the county a copy of the writ, together with a description of the property, and a notice that such real property, and any interest of the defendant therein, held by or standing in the name of such other person (naming him), are attached; and by leaving with the occupant, if any, and with such other person, or his agent, if known and within the county, or at the residence of either, if within the county, a copy of the writ, with a similar description and notice. If there is no occupant of the property, a copy of the writ, together with such description and notice, must be posted in a conspicuous place upon the property. The Recorder must index such attachment when filed, in the names, both of the defendant and of the person by whom the property is held or in whose name it stands on the records;

3. Personal property, capable of manual delivery, must be attached by taking it into custody;

4. Stocks or shares, or interest in stocks or shares, of any corporation or company, must be attached by leaving with the president, or other head of the same, or the secretary, cashier, or other managing agent

thereof, a copy of the writ, and a notice stating that the stock or interest of the defendant is attached. in pursuance of such writ;

5. Debts and credits, and other personal property, not capable of manual delivery, must be attached by leaving with the person owing such debts, or having in his possession, or under his control, such credits and other personal property, or with his agent, a copy of the writ, and a notice that the debts owing by him to the defendant, or the credits and other personal property in his possession, or under his control, belonging to the defendant, are attached in pursuance of such writ; and when a debt due under a judgment is attached, a copy of the writ shall also be filed with the clerk of the court wherein the judgment was rendered, and thereupon the clerk of the Superior Court shall enter in his register the filing of such copy and write upon the face of such judgment, where recorded in his office, the word "attached." When the judgment was rendered in a Justice's Court, a copy of the writ shall be filed with the justice of such court, who shall thereupon enter the fact of such filing in his docket;

6. The interest of a partner in partnership property must be attached by leaving with the person in charge of such property, a copy of the writ and a notice that the interest of the defendant therein is attached in pursuance of such writ.

NOTE.—The amendment provides for the levy of an attachment or execution in a suit against one partner, upon his interest in partnership property, by the service of notice. It is unfair to the other partners to allow the Sheriff to take possession of any of the partnership assets in a suit affecting one partner alone. The only interest which can be applied to the satisfaction of the judgment obtained in such a case is that of the partner defendant therein, which is a share thereof after the partnership liabilities are settled. The amendment also provides for levy upon a judgment.

SECTION 555. To be amended to read as follows:

Sec. 555. Before making such order, the court or judge must require an undertaking on behalf of the defendant, by at least two sureties, residents and freeholders, or householders, in the State, to the effect that in case the writ of attachment be not discharged on motion in the action in which the writ was issued, on the ground that the same was improperly or irregularly issued, or in case the plaintiff recover judgment in the action, defendant will, on demand, re-deliver the attached property so released to the proper officer, to be applied to the payment of the judgment, or, in default thereof, that the defendant and sureties will, on demand, pay to the plaintiff the full value of the property released. The court or judge making such order may fix the sum for which the undertaking must be executed, and, if necessary, in fixing such sum, to know the value of the property released, the same may be appraised by one or more disinterested persons, to be appointed by the court for that purpose. The sureties may be required to justify before

the court or judge, and the property attached cannot be released from the attachment without their justification, if the same be required.

NOTE.—The present section conditions the liability of the Sheriff on the recovery of judgment by the plaintiff. The proposed amendment adds to this the further condition that the attachment must not be discharged on the ground that the writ was improperly or irregularly issued.

SECTION 581. To be amended to read as follows:

Sec. 581. An action may be dismissed, or a judgment of nonsuit entered, in the following cases:

1. By the plaintiff himself, by written request to the clerk, filed among the papers in the case, at any time before trial, upon payment of costs; *provided*, a counterclaim has not been made, or affirmative relief sought by the cross-complaint or answer of the defendant. If a provisional remedy has been allowed, the undertaking must thereupon be delivered by the clerk to the defendant, who may have his action thereon;

2. By either party upon the written consent of the other;

3. By the court, when the plaintiff fails to appear on the trial, and the defendant appears and asks for the dismissal;

4. By the court, when, upon the trial and before the final submission of the case, the plaintiff abandons it;

5. By the court, upon motion of the defendant, when upon the trial the plaintiff fails to prove a sufficient case for the jury;

6. By the court, when, after verdict or final submission, the party entitled to judgment neglects to demand and have the same entered for more than six months.

The dismissals mentioned in subdivisions one and two hereof, are made by entry in the clerk's register.

The dismissals mentioned in subdivisions three, four, five, and six of this section, shall be made by orders of the court entered upon the minutes thereof, and shall be effective for all purposes when so entered, but the clerk of the court shall note such orders in his register of actions in the case.

7. And no action heretofore or hereafter commenced shall be further prosecuted, and no further proceedings shall be had therein, and all actions heretofore or hereafter commenced shall be dismissed by the court in which the same shall have been commenced, on its own motion, or on motion of any party interested therein, whether named in the complaint as a party or not, unless summons shall have been issued within one year; and all such actions shall be in like manner dismissed, unless the summons shall be served and return thereon made within three years after the commencement of said action. But all such actions may be prosecuted, if appearance has been made by the

defendant or defendants within said three years, in the same manner as if summons had been issued and served.

NOTE.—The effect of this amendment will be to settle conflicting decisions upon the question whether an action is dismissed before the judgment of dismissal is actually recorded by the clerk. Under the amendment, when a dismissal is filed, the clerk must enter the same in his register, and thereupon the action shall be for all purposes deemed to be dismissed.

SECTION 585. To be amended to read as follows:

Sec. 585. Judgment may be had, if the defendant fail to answer the complaint or cross-complaint, as follows:

1. On a cause of action arising upon contract for the recovery of money or damages only, if the defendant has been personally served and no answer has been filed with the clerk of the court within the time specified in the summons, or such further time as may have been granted, the clerk, upon application of the plaintiff, or cross-complainant, must enter the default of the defendant, and immediately thereafter enter judgment for the amount demanded by the complaint or cross-complaint, including the costs, against the defendant, or against one or more of several defendants, in the cases provided for in section four hundred and fourteen;

2. On other causes of action, if the defendant has been personally served and no answer has been filed with the clerk of the court within the time specified in the summons, or such further time as may have been granted, the clerk must enter the default of the defendant; and thereafter the plaintiff or cross-complainant may apply to the court for the relief demanded in the complaint or cross-complaint. If the taking of an account, or the proof of any fact, is necessary to enable the court to give judgment, or to carry the judgment into effect, the court may take the account or hear the proof; or may, in its discretion, order a reference for that purpose. And where the action is for the recovery of damages, in whole or in part, the court may order the damages to be assessed by a jury; or if, to determine the amount of damages, the examination of a long account be involved, by a reference as above provided;

3. In actions where the service of a summons was by publication, the plaintiff or cross-complainant, upon the expiration of the time for answering, may, upon proof of the publication, and that no answer has been filed, apply for judgment; and the court must thereupon require proof to be made of the demand mentioned in the complaint or cross-complaint; and if the defendant be not a resident of the State, must require the plaintiff or his agent to be examined on oath respecting any payments that have been made to the plaintiff or cross-complainant, or to any one for his use, on account of such demand, and may render judgment for the amount which he is entitled to recover.

SECTION 632. To be amended to read as follows:

Sec. 632. Upon the trial of a question of fact by the court, its decision must be given within thirty days after the cause is submitted for decision, and, except in cases on appeal to the Superior Court, as a tribunal of final resort, must be in writing, and filed with the clerk.

NOTE.—The amendment makes findings of fact unnecessary in the decision of cases on appeal in the Superior Court.

SECTION 635. A new section to be added to read as follows:

Sec. 635. The court may amend, eliminate from, or add to its decision, or the judgment entered thereon, at any time between the submission of a motion for a new trial and the entry of an order disposing of such motion.

NOTE.—This amendment will allow the court to amend its findings, and the judgment, when, on the argument of the motion for a new trial, it is apparent that a mistake or omission has been made. As the law now is, the court cannot correct such errors, except by granting a new trial.

SECTION 658. To be amended to read as follows:

Sec. 658. When the application is made for a cause mentioned in the first, second, third, and fourth subdivisions of the last section, it must be made upon affidavits; and for any other cause it must be made upon the minutes of the court, as hereinafter provided.

SECTION 659. To be amended to read as follows:

Sec. 659. The party intending to move for a new trial must, within ten days after the verdict of the jury, if the action were tried by a jury, or after notice of the decision of the court or referee, if the action were tried without a jury, file with the clerk, and serve upon the adverse party, a notice of his intention, designating the grounds upon which the motion will be made, and whether the same will be made upon affidavits or the minutes of the court, or both:

1. On affidavits: If the motion is to be made upon affidavits, the moving party must, within ten days after serving the notice, or such further time as the court in which the action is pending, or a judge thereof, may allow, file such affidavits with the clerk, and serve a copy upon the adverse party, who shall have ten days to file counter affidavits, a copy of which must be served upon the moving party;

2. On minutes of court: When the motion is to be made upon the minutes of the court, and the ground of the motion is the insufficiency of the evidence to justify the verdict or other decision, the notice of motion must specify the particulars in which the evidence is alleged to be insufficient; and, if the ground of the motion be errors in law occurring at the trial, and excepted to by the moving party, the notice must specify the particular errors upon which the party will rely. If the

notice does not contain the specifications herein indicated, when the motion is made on the minutes of the court, the motion must be denied.

SECTION 660. To be amended to read as follows:

Sec. 660. The application for a new trial shall be heard at the earliest practicable period after notice of the motion, if the motion is to be heard upon the minutes of the court, and in other cases, after the affidavits are filed, and may be brought to a hearing upon motion of either party. On such hearing reference may be had in all cases to the pleadings and orders of the court on file, and to any depositions and documentary evidence on file, and to any bill of exceptions which may have been settled and filed during the progress of the trial, and to the phonographic reporter's notes, whether the same have been transcribed or not.

SECTION 661. To be amended to read as follows:

Sec. 661. The judgment roll and the affidavits, and such bills of exceptions as may have been settled and filed during the progress of the trial, and the statement of the case to be prepared after the decision of the motion, with a copy of the order, shall constitute the record to be used on appeal from the order granting or refusing a new trial. Such subsequent statement shall be proposed by the party appealing, or intending to appeal, within ten days after notice of the entry of the order, granting or denying a new trial, or such further time as the court in which the action is pending, or a judge thereof, may allow, and the same or a copy thereof shall be served upon the adverse party, who shall have ten days thereafter to prepare amendments thereto, and serve the same, or a copy thereof, upon the party appealing, or intending to appeal. It is the duty of the judge, in settling the statement, to strike out of it all redundant and useless matter, and to make the statement truly represent the case, notwithstanding the assent of the parties to such redundant or useless matter, or to any inaccurate statement. When settled, the statement shall be signed by the judge, with his certificate to the effect that the same is allowed, and it shall then be filed with the clerk.

NOTE.—The four last proposed amendments will require all motions for a new trial, except where made upon affidavits, to be heard upon the minutes of the court. After the disposition of the motion a statement of the case can be settled in the usual way by the party desiring to appeal from the order.

SECTION 671. To be amended to read as follows:

Sec. 671. Immediately after filing the judgment roll, the clerk must make the proper entries of the judgment, under appropriate heads, in the docket kept by him, and from the time the judgment is docketed it becomes a lien upon all the real property of the judgment debtor not

exempt from execution in the county, owned by him at the time, or which he may afterwards acquire, until the lien ceases. The lien continues for two years, unless the enforcement of the judgment be stayed on appeal by the execution of a sufficient undertaking, as provided in this Code, in which case the lien of the judgment ceases.

NOTE.—The amendment makes the lien upon real estate of a judgment cease at the end of two years, instead of five years, as by the present section. By Section 674, two years is the limit for a certified transcript of a judgment as filed in any other county, and by Section 900 the filing in the Recorder's office of an abstract of the judgment rendered by a justice of the peace, makes such judgment a lien for only two years. The limit should be the same in all cases, and it is believed that the interest of both creditor and debtor will be best subserved by reducing the time in all cases to two years. The amendment also eliminates the provision that on the filing of a stay bond on appeal, an attachment levied by the respondent is dissolved. The injustice of such a provision is, that where a party has secured his demand by an attachment and recovers judgment, a reversal thereof on appeal on technical grounds, where a stay bond has been filed, leaves him unsecured, if the property attached has been disposed of, pending the appeal.

SECTION 676. A new section to be added to read as follows:

Recording judgment decreeing conveyance equivalent to conveyance.

Sec. 676. Whenever a judgment of a court decrees that a conveyance of real property be made by any person, such judgment, when it becomes final, shall operate as a deed to convey the property therein decreed to be conveyed, without any conveyance being executed by such person. A certified copy of such judgment, when recorded in the office of the County Recorder of the county where the land is situated, shall stand in the place of a deed.

SECTION 691. To be amended to read as follows:

Sec. 691. The Sheriff must execute the writ against the property of the judgment debtor, by levying on a sufficient amount of property, if there be sufficient; collecting or selling the things in action, including judgments in favor of or owned by the judgment debtor, and selling the other property, and paying to the plaintiff, or his attorney, so much of the proceeds as will satisfy the judgment. Any excess in the proceeds over the judgment and accruing costs, must be returned to the judgment debtor, unless otherwise directed by the judgment or order of the court. When there is more property of the judgment debtor than is sufficient to satisfy the judgment and accruing costs within the view of the Sheriff, he must levy only on such part of the property as the judgment debtor may indicate, if the property indicated be amply sufficient to satisfy the judgment and costs.

SECTION 699. To be amended to read as follows:

Sec. 699. When the purchaser of any personal property not capable of manual delivery, or of the interest of a partner in partnership

property, pays the purchase money, the officer making the sale must execute and deliver to the purchaser a certificate of sale. Such certificate conveys to the purchaser all the right which the debtor had in such property on the day the execution or attachment was levied.

NOTE.—This amendment, taken in connection with that proposed to Section 542, provides for the sale on execution of a partner's interest, without interfering with the possession of the property by the partnership.

SECTION 730. A new section to be added to Chapter I, Title X, Part II, to read as follows:

Regulating attorney's fees in foreclosure cases.

Sec. 730. In all cases of foreclosure of a mortgage, the attorney's fee shall be fixed by the court in which the proceeding of foreclosure is had, any stipulation in said mortgage to the contrary, notwithstanding.

NOTE.—The proposed new section contains the provisions of the Act of March 27, 1874. (Stats. 1873-74, p. 707.)

SECTION 811. A new section to be added to read as follows:

Involuntary dissolution of corporation.

Sec. 811. A corporation may be dissolved, at the suit of the Attorney-General on behalf of the State, for violation of any law of the State under which it was created, or for the non-performance of obligations assumed by it in favor of the State.

NOTE.—This section provides for the involuntary dissolution of corporations, as indicated in Section 399 of the Civil Code.

SECTION 849. To be amended to read as follows:

Sec. 849. The summons may be served by any Sheriff or Constable of this State, or by any male resident, over the age of eighteen years not a party to the suit. And must be served and returned as provided in title five, part two, of this Code. Or it may be served by publication, and sections four hundred and twelve and four hundred and thirteen, so far as they relate to the publication of summons, are made applicable to justices' courts, the word "justice" being substituted for the word "judge" wherever the latter word occurs.

NOTE.—The amendment eliminates the useless provision of the section requiring the County Clerk's certificate upon a summons to be served outside of the county in which it is issued, and also allows the summons in such a case to be served by a male resident of the State over the age of eighteen years.

SECTION 868. To be amended to read as follows:

Sec. 868. The writ may be directed to any Sheriff or Constable in the State of California, and must require him to attach and safely keep all the property of the defendant within his county, not exempt from execution, or so much thereof as may be sufficient to satisfy the plaintiff's demand, the amount of which must be stated in conformity with the

complaint, unless the defendant give him security, by the undertaking of two sufficient sureties, in an amount sufficient to satisfy such demand, besides costs; in which case, to take such undertaking.

NOTE.—The amendment allows a writ of attachment to be executed by Constables outside of the county where the justice resides.

SECTION 939. To be amended to read as follows:

Sec. 939. An appeal may be taken:

1. From a final judgment in an action or special proceeding commenced in the court in which the same is rendered, within six months after the entry of judgment. But an exception to the decision or verdict, on the ground that it is not supported by the evidence, cannot be reviewed on an appeal from the judgment, unless the appeal is taken within sixty days after the rendition of the judgment;

2. From a judgment rendered on an appeal from an inferior court, within ninety days after the entry of such judgment;

3. From an order granting or refusing a new trial; from an order granting or dissolving an injunction; from an order refusing to grant or dissolve an injunction; from an order appointing a receiver; from an order dissolving or refusing to dissolve an attachment; from an order granting or refusing to grant a change of the place of trial; from any special order made after final judgment; from an interlocutory judgment in actions for partition of real property; and from an order confirming, changing, modifying, or setting aside the report, in whole or in part, of the referees in actions for partition of real property in the cases mentioned in section seven hundred and sixty-three of this Code, within sixty days after the order or interlocutory judgment is made and entered in the minutes of the court, or filed with the clerk.

NOTE.—The amendment allows an appeal from an order appointing a receiver, but under the proposed amendment to Section 943, *infra*, such appeal does not stay the execution of the order, unless a bond be given in an amount to be determined by the court.

SECTION 943. To be amended to read as follows:

Sec. 943. If the judgment or order appealed from direct the assignment or delivery of documents or personal property, the execution of the judgment or order cannot be stayed by appeal, unless the things required to be assigned or delivered be placed in the custody of such officer or receiver as the court may appoint, or unless an undertaking be entered into on the part of the appellant, with at least two sureties, and in such amount as the court, or a judge thereof, may direct, to the effect that the appellant will obey the order of the appellate court upon the appeal. If the judgment or order appealed from appoint a receiver, the execution of the judgment or order cannot be stayed by appeal, unless a written undertaking be executed on the part of the appellant,

with two or more sureties, to the effect that if such judgment or order be affirmed or the appeal dismissed, the appellant will pay all damages which the respondent may sustain by reason of such stay, not exceeding an amount to be fixed by the judge of the court by which the judgment was rendered or order made, which amount must be specified in the undertaking. If the judgment or order appealed from direct the sale of personal property upon the foreclosure of a mortgage thereon, the execution of the judgment or order cannot be stayed on appeal, unless an undertaking be entered into on the part of the appellant, with at least two sureties, in such amount as the court, or the judge thereof, may direct, to the effect that the appellant will, on demand, deliver the mortgaged property to the proper officer if the judgment be affirmed, or in default of such delivery, that the appellant and sureties will, on demand, pay to the proper officer the full value of such property at the date of the appeal.

SECTION 963. To be amended to read as follows:

Sec. 963. An appeal may be taken to the Supreme Court, from a Superior Court, in the following cases:

1. From a final judgment entered in an action or special proceeding commenced in a Superior Court, or brought into a Superior Court from another court;

2. From an order granting or refusing a new trial, or granting or dissolving an injunction, or refusing to grant or dissolve an injunction, or appointing a receiver, or dissolving or refusing to dissolve an attachment, or changing or refusing to change the place of trial, from any special order made after final judgment, and from such interlocutory judgment in actions for partition as determines the rights and interests of the respective parties, and directs partition to be made;

3. From a judgment or order granting or refusing to grant, revoking or refusing to revoke, letters testamentary, or of administration, or of guardianship; or admitting or refusing to admit a will to probate, or against or in favor of the validity of a will, or revoking the probate thereof; or against or in favor of setting apart property, or making an allowance for a widow or child; or against or in favor of directing the partition, sale, or conveyance of real property, or settling an account of an executor, administrator, or guardian; or refusing, allowing, or directing the distribution or partition of an estate, or any part thereof, or the payment of a debt, claim, or legacy, or distributive share; or confirming or refusing to confirm a report of an appraiser or appraisers setting apart a homestead.

SECTION 977. To be amended to read as follows:

Sec. 977. Upon receiving the notice of appeal, and on payment of the fees of the justice or judge, payable on appeal and not included in

the judgment, and filing an undertaking as required in the next section, and after settlement or adoption of statement, if any, the justice or judge must, within five days, transmit to the clerk of the Superior Court, if the appeal be on questions of law alone, a certified copy of his docket, the statement as admitted or as settled, the notice of appeal, and the undertaking filed; or, if the appeal be on questions of fact, or both law and fact, a certified copy of his docket, the pleadings, all notices, motions, and all other papers filed in the cause, the notice of appeal, and the undertaking filed; and the justice or judge may be compelled by the Superior Court, by an order entered upon motion, to transmit such papers, and may be fined for neglect or refusal to transmit the same. A certified copy of such order may be served on the justice or judge by the party or his attorney. In the Superior Court, either party may have the benefit of all legal objections made in the Justice's or Police Court.

NOTE.—The amendment will relieve the applicant of the necessity of paying all the costs of the action, as a prerequisite to the hearing of his appeal, including those already charged against him in the judgment, as decided in the case of *Webster vs. Hanna*, 102 Cal. 177.

SECTION 978. To be amended to read as follows:

Sec. 978. An appeal from a Justice's or Police Court is not effectual for any purpose unless an undertaking be filed, with two or more sureties, in the sum of one hundred dollars, for the payment of the costs on the appeal, or the undertaking be waived in writing by the adverse party; or, if a stay of proceedings be claimed, in a sum equal to twice the amount of the judgment, including costs, when the judgment is for the payment of money; or twice the value of the property, including costs, when the judgment is for the recovery of specific personal property, and must be conditioned, when the action is for the recovery of money, that the appellant will pay the amount of the judgment appealed from, and all costs, if the appeal be withdrawn or dismissed, or the amount of any judgment and all costs that may be recovered against him in the action in the Superior Court. When the action is for the recovery of, or to enforce or foreclose a lien on, specific personal property, the undertaking must be conditioned that the appellant will pay the judgment and costs appealed from, and obey the order of the court made therein, if the appeal be withdrawn or dismissed, or any judgment and costs that may be recovered against him in said action in the Superior Court, and will obey any order made by the court therein. When the judgment appealed from directs the delivery of the possession of real property, the execution of the same cannot be stayed unless a written undertaking be executed on the part of the appellant, with two or more sureties, to the effect that during the possession of such property by the appellant he will not commit or suffer to be committed any waste thereon, and that

if the appeal be dismissed or withdrawn, or the judgment affirmed, or judgment be recovered against him in the action in the Superior Court, he will pay the value of the use and occupation of the property from the time of the appeal until the delivery of possession thereof; or that he will pay any judgment and costs that may be recovered against him in said action in the Superior Court, not exceeding a sum to be fixed by the justice of the court from which the appeal is taken, and which sum must be specified in the undertaking. A deposit of the amount of the judgment, including all costs appealed from, or of the value of the property, including all costs in actions for the recovery of specific personal property, with the justice or judge, is equivalent to the filing of the undertaking, and in such cases the justice or judge must transmit the money to the clerk of the Superior Court, to be by him paid out on the order of the court. The adverse party may except to the sufficiency of the sureties within five days after the filing of the undertaking, and unless they or other sureties justify before the justice or judge, or the County Clerk of the county in which such justice or judge resides, within five days thereafter, upon notice to the adverse party, to the amount stated in their affidavits, the appeal must be regarded as if no such undertaking had been given, and execution may thereafter be issued on the judgment.

NOTE.—The amendment allows the justification of sureties upon the appeal bonds mentioned in the section to be made before the County Clerk, and provides that unless they so justify, execution shall be issued on the judgment. It also provides that the undertaking may be waived, by the adverse party, in writing.

SECTION 980. To be amended to read as follows:

Sec. 980. Upon an appeal heard upon a statement of the case, the Superior Court may review all orders affecting the judgment appealed from, and may set aside, or confirm, or modify any or all of the proceedings subsequent to and dependent upon such judgment, and may, if necessary or proper, order a new trial. When the action is tried anew, on appeal, the trial must be conducted in all respects as other trials in the Superior Court, but unless a judgment is rendered more favorable to appellant than in the court below, the appellant must pay all costs of the trial in the Superior Court. The provisions of this Code as to changing the place of trial, and all the provisions as to trials in the Superior Court, are applicable to trials on appeal in the Superior Court. For a failure to prosecute an appeal, or unnecessary delay in bringing it to a hearing, the Superior Court, after notice, may order the appeal to be dismissed, with costs; and if it appear to such court that the appeal was made solely for delay, it may add to the costs such damages as may be just, not exceeding twenty-five per cent of the judgment appealed from. Judgments rendered in the Superior Court on appeal

shall have the same force and effect and may be enforced in the same manner as judgments in actions commenced in the Superior Court.

NOTE.—The amendment puts the costs in the Superior Court upon the appellant, unless the judgment therein rendered is more favorable to him than that appealed from.

SECTION 1015. To be amended to read as follows:

Sec. 1015. When a plaintiff or a defendant, who has appeared, resides out of the State, and has no attorney in the action or proceeding, or when a party has been served with summons and his default for not answering has been entered, the service may be made on the clerk for him. But in all cases where a party has an attorney in the action or proceeding, the service of papers, when required, must be upon the attorney instead of the party, except of subpoenas, of writs, of other process issued in the suit, and of papers to bring him into contempt.

NOTE.—The amendment allows service of notice where necessary to be made upon the clerk, after the entry of the default of the party for not answering.

SECTION 1040. A new section to be added to read as follows:

Printing briefs on appeal—Costs.

Sec. 1040. A party entitled to recover his costs on appeal to the Supreme Court shall be entitled to include in his cost bill the expense of printing the points and authorities on the argument of such appeal, not exceeding fifty dollars in any one case.

SECTION 1161. To be amended to read as follows:

Sec. 1161. A tenant of real property, for a term less than life, is guilty of an unlawful detainer:

1. When he continues in possession, in person or by a subtenant, of the property, or any part thereof, after the expiration of the term for which it is let to him, without the permission of his landlord, or the successor in estate of his landlord, if any there be; but in the case of a tenancy at will, it must first be terminated by notice, as prescribed in the Civil Code;

2. Where he continues in possession, in person or by subtenant, without permission of his landlord, or the successor in estate of his landlord, if any there be, after default in the payment of rent, pursuant to the lease or agreement under which the property is held, and three days' notice, in writing, requiring its payment, stating the amount which is due, or possession of the property, shall have been served upon him, and if there be a subtenant in actual occupation of the premises, also upon such subtenant. Such notice may be served at any time within one year after the rent becomes due. In all cases of tenancy upon agricultural lands, where the tenant has held over and retained possession for more than sixty days after the expiration of his term, without

any demand of possession or notice to quit by the landlord, or the successor in estate of his landlord, if any there be, he shall be deemed to be holding by permission of the landlord, or the successor in estate of his landlord, if any there be, and shall be entitled to hold under the terms of the lease for another full year, and shall not be deemed guilty of an unlawful detainer during said year, and such holding over for the period aforesaid shall be taken and construed as a consent on the part of a tenant to hold for another year;

3. When he continues in possession, in person or by subtenant, after a neglect or failure to perform other conditions or covenants of the lease or agreement under which the property is held, including any covenant not to assign or sublet, than the one for the payment of rent, and three days' notice, in writing, requiring the performance of such conditions or covenants, or the possession of the property, shall have been served upon him, and if there be a subtenant in actual occupation of the premises, also upon such subtenant. Within three days after the service of the notice, the tenant, or any subtenant in actual occupation of the premises, or any mortgagee of the term, or other person interested in its continuance, may perform the conditions or covenants of the lease, or pay the stipulated rent, as the case may be, and thereby save the lease from forfeiture; *provided*, if the covenants and conditions of the lease violated by the lessee cannot afterward be performed, then no notice, as last prescribed herein, need be given to said lessee or his subtenant demanding the performance of the violated covenants or conditions of the lease. A tenant may take proceedings, similar to those prescribed in this chapter, to obtain possession of the premises let to an undertenant, in case of his unlawful detention of the premises underlet to him;

4. Any tenant or subtenant assigning or subletting or committing waste upon the demised premises, contrary to the covenants of his lease, thereby terminates the lease, and the landlord, or his successor in estate, shall, upon service of three days' notice to quit, upon the person or persons in possession, be entitled to restitution of possession of such demised premises under the provisions of this section.

NOTE.—There are two sections numbered 1161, approved on the same day, and the effect of the amendment will be to repeal them, and substitute a more comprehensive one.

SECTION 1166. To be amended to read as follows:

Sec. 1166. The plaintiff, in his complaint, which shall be in writing, must set forth the facts on which he seeks to recover, and describe the premises with reasonable certainty, and may set forth therein any circumstances of fraud, force, or violence, which may have accompanied the alleged forcible entry, or forcible or unlawful detainer, and claim

damages therefor. In case the unlawful detainer charged be after default in the payment of rent, the complaint must state the amount of such rent. Upon filing the complaint, a summons must be issued thereon as in other cases, returnable at a day designated therein, which shall not be less than three, nor more than five, days from its date, except in cases where the publication of the summons is necessary, in which case the court, or a judge or justice thereof, may order that the summons be made returnable at such time as may be deemed proper, and the summons shall specify the return day so fixed.

NOTE.—The amendment makes the return day not less than three nor more than five days, instead of not less than three nor more than twelve days, as at present.

SECTION 1170. To be amended to read as follows:

Sec. 1170. On or before the day fixed for his appearance, the defendant may appear and answer. He may file a demurrer at the same time with his answer, but not otherwise, and the demurrer shall be disposed of by the court or justice at the trial of the action. If the demurrer is sustained, an immediate amendment of the pleadings shall be allowed. When issue of fact is joined and the case is in a condition to proceed with the trial thereof, such trial shall be had forthwith, if the business of the court or justice will conveniently permit, or at as early a time as may be consistent with the rights of the parties. If a speedy trial will be facilitated by the transfer of the case to another judge or justice of the court, an order may be made transferring such case for trial accordingly.

NOTE.—The amendment is designed to expedite the trial of these cases by providing that a demurrer shall only be filed at the same time with the answer, and disposed of at the trial; for an amendment of pleadings forthwith, if necessary; for the immediate trial, if convenient to the court, and for the transfer of the case, if, thereby, an earlier trial can be had.

SECTION 1209. To be amended to read as follows:

Sec. 1209. The following acts or omissions in respect to a court of justice, or proceedings therein, are contempts of the authority of the court:

1. Disorderly, contemptuous, or insolent behavior toward the judge while holding the court, tending to interrupt the due course of a trial or other judicial proceeding;
2. A breach of the peace, boisterous conduct, or violent disturbance, tending to interrupt the due course of a trial or other judicial proceeding;
3. Misbehavior in office, or other willful neglect or violation of duty, by an attorney, counsel, clerk, sheriff, coroner, or other person appointed or elected to perform a judicial or ministerial service;

4. Deceit or abuse of the process or proceedings of the court by a party to an action or special proceeding;

5. Disobedience of any lawful judgment, order, or process of court;

6. Assuming to be an officer, attorney, counsel of a court, and acting as such, without authority;

7. Rescuing any person or property in the custody of an officer by virtue of an order or process of such court;

8. Unlawfully detaining a witness, or party to an action, while going to, remaining at, or returning from, the court where the action is on the calendar for trial;

9. Any other unlawful interference with the process or proceedings of a court;

10. Disobedience of a subpoena, duly served, or refusing to be sworn or answer as a witness before a court or any officer authorized to issue a subpoena, administer oaths, and take testimony;

11. When summoned as a juror in a court, neglecting to attend or serve as such, or improperly conversing with a party to an action to be tried at such court, or with any other person, in relation to the merits of such action, or receiving a communication from a party or other person in respect to it, without immediately disclosing the same to the court;

12. Disobedience, by an inferior tribunal, magistrate, or officer, of the lawful judgment, order, or process of a Superior Court, or proceeding in an action or special proceeding contrary to law, after such action or special proceeding is removed from the jurisdiction of such inferior tribunal, magistrate, or officer. Disobedience of the lawful orders or process of a judicial officer is also a contempt of the authority of such officer. But no speech or publication reflecting upon, or concerning any court, or any officer thereof, shall be treated or punished as a contempt of such court, unless made in the immediate presence of such court while in session, and in such a manner as to actually interfere with its proceedings.

NOTE.—The amendment is to Subdivision 10 of the section, and is designed, with the amendment proposed to Section 1991, to enable the court to punish as a contempt the non-appearance or refusal of a witness to testify before a notary public in a proper case.

SECTION 1234. A new section to be added to read as follows:

Disposition of unclaimed deposit or dividend.

Sec. 1234. If the applicant be a savings and loan association, or engaged in the business of receiving money on deposit, and there be any unclaimed deposit or dividend in its hands belonging to a person whose whereabouts is unknown to the trustees, directors, or other officers presenting the application, the application shall set forth the

name of the person making such deposit or entitled to such dividend, the time when such deposit was made or dividend declared, the residence, if known, of such person at the time of such deposit, the amount of such deposit or dividend, and the fact that the whereabouts of such person is unknown. The same facts shall be stated in the notice of the application given by the clerk. If, at any time before the expiration of the time of publication, any person shall file a claim to such deposit or dividend, the court shall, at the hearing and upon five days' notice to him, hear and determine his claim, and, if such claim be established, order such money to be paid to him. All such deposits or dividends not so claimed, or as to which no claim shall be established, shall, upon order of the court, be paid into the state treasury, accompanied with a copy of the order, which shall set forth the facts hereinbefore in this section required to be stated concerning such deposits or dividends; and, upon production of the State Treasurer's receipt for such payment, the court may proceed to declare the corporation dissolved as in other cases. All unclaimed deposits and dividends so paid into the state treasury shall be received, invested, accounted for, and paid out, in the same manner and by the same officers as is provided by law in the case of escheated estates and in section twelve hundred and seventy-two of this Code.

SECTION 1278. To be amended to read as follows:

Sec. 1278. Such application must be heard at such time as the court may appoint, and objections may be filed by any person who can, in such objections, show to the court good reason against such change of name. On the hearing, the court may examine on oath any of the petitioners, remonstrants, or other persons, touching the application, and may make such order changing the name or dismissing the application, as to the court may seem right and proper. A certified copy of any order changing the name of a corporation shall be filed with the Secretary of State, and such order shall have no effect until such certified copy thereof is filed with the Secretary of State.

SECTION 1324. To be amended to read as follows:

Sec. 1324. If, on the hearing, it appears upon the face of the record that the will has been proved, allowed, and admitted to probate in any other of the United States, or in any foreign country, and that it was executed in conformity with the laws of this State, it must be admitted to probate, and have the same force and effect as a will first admitted to probate in this State, and letters testamentary or of administration issued thereon.

NOTE.—The amendment harmonizes this section with Sections 1276 and 1285 of the Civil Code, which provide that a will made out of the State is not valid unless executed according to the provisions of that Code.

SECTION 1369. To be amended to read as follows:

Sec. 1369. No person is competent, or shall be appointed, to serve as administrator or administratrix who is:

1. Under the age of majority;
2. Not a bona fide resident of the State;
3. Convicted of an infamous crime;
4. Adjudged by the court incompetent to execute the duties of the trust by reason of drunkenness, improvidence, or want of understanding or integrity.

NOTE.—The amendment adds the words "shall be appointed" to the section, instead of the word "entitled."

SECTION 1379. To be amended to read as follows:

Sec. 1379. Administration may be granted to one or more competent persons, at the written request of the person entitled, filed in the court. The force and effect of such request shall not be affected by the fact that the person entitled may be a non-resident of the State. When the person entitled is a non-resident of the State, affidavits taken *ex parte* before any officer authorized by the laws of this State to take acknowledgments and administer oaths out of this State, may be received as *prima facie* evidence of the identity of the party, if free from suspicion, and the fact is established to the satisfaction of the court.

NOTE.—The proposed amendment will allow a non-resident person who would be entitled to administer if a bona fide resident of the State, to nominate a competent person for appointment as administrator, with like effect as if he were such resident.

SECTION 1465. To be amended to read as follows:

Sec. 1465. Upon the return of the inventory, or at any subsequent time during the administration, the court may, on its own motion, or on petition therefor, set apart, for the use of the surviving husband or wife, or in case of his or her death, to the minor children of the decedent, all the property exempt from execution, including the homestead selected, designated, and recorded. If none has been selected, designated, and recorded, the court must select, designate, and set apart, and cause to be recorded, a homestead for the use of the surviving husband or wife and the minor children, or if there be no surviving husband or wife, then for the use of the minor children, in the manner provided in article two of this chapter, out of the common property; or if there be no common property, then out of the real estate belonging to the decedent.

NOTE.—This amendment will make the section conform, when taken in connection with Section 1468 of this Code, to Section 1265 of the Civil Code, allowing the homestead in all cases to be set apart to the use of the widow or minor children absolutely, if of community property; otherwise, for a limited period.

SECTION 1468. To be amended to read as follows:

Sec. 1468. When property is set apart to the use of the family, in accordance with the provisions of this chapter, if the decedent left a widow or surviving husband and no minor child, such property is the property of the widow or surviving husband. If the decedent left also a minor child or children, the one half of such property shall belong to the widow or surviving husband, and the remainder to the child, or in equal shares to the children if there be more than one; in which cases the property shall constitute a homestead of five thousand dollars if the surviving husband or wife is the head of a family, as defined in the Civil Code; otherwise, of one thousand dollars. If there be no widow or surviving husband, the whole belongs to the minor child or children in equal shares. If the property set apart be a homestead, selected from the separate property of the deceased, either in his lifetime, or by the court after his death, the court can only set it apart for a limited period, to be designated in the order, and the title vests in his heirs or devisees subject to such order.

SECTION 1474. To be amended to read as follows:

Sec. 1474. If the homestead selected by the husband and wife, or either of them, during their coverture, and recorded while both were living, was selected from the community property, it vests, upon the death of the husband or wife, absolutely in the survivor. If the homestead was selected from the separate property of either the husband or the wife, it vests, on the death of the person from whose property it was selected, in his or her heirs or devisees, subject to the power of the Superior Court to assign it for a limited period to the family of the decedent. In any case, it is not subject to the payment of any debt or liability contracted by or existing against the husband and wife, or either of them, previous to or at the time of the death of such husband or wife, except as provided in the Civil Code.

SECTION 1475. To be amended to read as follows:

Sec. 1475. If the homestead selected and recorded prior to the death of the decedent be returned in the inventory appraised at not exceeding five thousand dollars in value, or was previously appraised as provided in the Civil Code, and such appraised value did not exceed that sum, the Superior Court must, by order, set it off to the persons in whom title is vested by the preceding section. If there be subsisting liens or incumbrances on the homestead, the claims secured thereby may be presented and allowed as other claims against the estate; and must be so presented if demand be made therefor as hereinafter provided; if the funds of the estate be adequate to pay all claims against the estate, the claims so secured must be paid out of such funds. If the funds of

the estate be not sufficient for that purpose, the claims so secured shall be paid proportionately with other claims allowed, and the liens or incumbrances on the homestead shall only be enforced against the homestead for any deficiency remaining after such payment. Any person interested in the homestead may demand that the claims secured by lien or incumbrance thereon, be presented for allowance as other claims against the estate. Such demand must be in writing, and be delivered to the holder of said claim personally, or be inclosed in an envelope addressed to him at his place of residence or business, and deposited in the United States post office, with the postage thereon prepaid, at least thirty days before the expiration of the time specified in the published notice to creditors within which to present claims against the estate. A copy of said published notice must be delivered or mailed with said demand. If demand be made, as in this section provided, and such claim be not presented for allowance, no action shall be maintained thereon. If no demand be made, as in this section provided, the holder of any lien or incumbrance upon the homestead may enforce the same against the property subject thereto, as provided in section fifteen hundred of this Code.

SECTION 1479. A new section to be added to read as follows:

Proceedings on confirmation of report.

Sec. 1479. If the report contains an admeasurement and division of the property, the court shall, in its order confirming the same, set apart the portion allotted as a homestead to the parties entitled, and thereupon the remaining portion of the premises described in the report shall become the property of the estate, free of any homestead claim. If the report contains a finding that the premises exceeded in value, at the time of their selection, the sum of five thousand dollars, and they cannot be divided without material injury, the court shall, in its order confirming the same, decree that the homestead property shall be sold for a sum in cash not less than five thousand dollars and an amount equal to the expenses of the sale.

SECTION 1480. A new section to be added to read as follows:

Proceedings under order of sale.

Sec. 1480. Such order must describe the lands to be sold, and every such sale must be ordered to be made at public auction. If the executor or administrator neglects or refuses to make the sale under the order, and as directed therein, he may be compelled to sell by order of the court, made on motion of any person interested. After the order of sale is made, all further proceedings for the sale of such property, and for the notice, report, and confirmation thereof, must be in conformity with the provisions of chapter seven, title eleven, part three of this

Code, except that no bid for an amount less than the sums mentioned in the last preceding section shall be received.

SECTION 1481. A new section to be added to read as follows:

Disposition of proceeds of sale.

Sec. 1481. If the sale is confirmed, the proceeds thereof to the amount of five thousand dollars must be paid to the party or parties entitled to the homestead, and the surplus shall belong to the estate. The amount so paid to the party or parties entitled to the homestead shall be exempt from execution for six months thereafter.

SECTION 1485. To be amended to read as follows:

Sec. 1485. The costs of all proceedings in the Superior Court provided for in this chapter must be paid by the estate as expenses of administration.

SECTION 1487. A new section to be added to Article II, Chapter V, Title XI, Part III, to read as follows:

Sec. 1487. In making any order setting apart or assigning property claimed to have been selected and recorded as a homestead prior to the death of the decedent, the court shall ascertain and adjudge the rights therein of the surviving husband or wife, and of all persons claiming under the decedent, and shall, in such order, and in any order made pursuant to this chapter setting apart or assigning property, name the persons to whom the same is set apart or assigned, and their respective estates, or rights and interests therein. Such order shall be conclusive upon the surviving husband or wife, and upon all persons claiming as heirs, legatees, or devisees of the decedent, subject only to be reversed, set aside, or modified upon appeal.

SECTION 1490. To be amended to read as follows:

Sec. 1490. Upon the hearing of a petition for the probate of a will or for letters of administration, the court must, by examining on oath the party applying, or any other person, determine whether the value of the estate exceeds ten thousand dollars or not, and such determination shall be conclusive upon all persons, including creditors of the estate, in so far as the value of the estate affects the time within which claims must be presented against the estate. Every executor or administrator must, immediately after his appointment, cause to be published in some newspaper of the county, if there be one, if not, then in such newspaper as may be designated by the court, a notice to the creditors of the decedent, requiring all persons having claims against him to exhibit them, with the necessary vouchers, to the executor or administrator, at the place of his residence or business, in the county in which the letters

testamentary or of administration were granted, to be specified in the notice. Such notice must be published as often as the judge or court shall direct, but not less than once a week for four weeks. The court or judge may also direct additional notice by publication or posting. In case such executor or administrator resigns, or is removed, before the time expressed in the notice, his successor must give notice only for the unexpired time allowed for such presentation.

NOTE.—The amendment provides that the court shall determine the value of the estate, when letters are issued, in so far as that question affects the time within which claims must be presented. It also requires the place at which claims are to be presented to be in the county where the letters are issued.

SECTION 1491. To be amended to read as follows:

Sec. 1491. The time expressed in the notice must be ten months after its first publication, if the court determines, under the preceding section, that the value of the estate exceeds ten thousand dollars; otherwise, the time expressed in the notice must be four months after its first publication.

NOTE.—The proposed amendment conforms this section to the change proposed to the preceding section requiring the court to determine the value of the estate for the purpose of fixing beforehand the time within which claims must be presented.

SECTION 1493. To be amended to read as follows:

Sec. 1493. All claims against the estates of decedents, whether the same be due, not due, or contingent, must be presented within the time limited in the notice, and any claim not so presented is barred forever; *provided, however*, that when it is made to appear, by the affidavit of the claimant, to the satisfaction of the court, or a judge thereof, that the claimant had no notice as provided in this chapter, by reason of being out of the State, it may be presented at any time before a decree of distribution is entered.

NOTE.—The amendment requires "*all* claims against an estate" to be presented, which is desirable in view of the proposed new section, 1592, which allows actions to be maintained against the estates of deceased persons in all cases except for slander or libel, or for assault and battery. The section as it now stands permits only "claims arising on contracts" to be presented.

SECTION 1496. To be amended to read as follows:

Sec. 1496. When a claim, accompanied by the affidavit required in this chapter, is presented to the executor or administrator, he must indorse thereon his allowance or rejection, with the day and date thereof. If he allow the claim, it must be returned to the claimant, who must, within twenty days thereafter, present it to a judge of the Superior Court for his approval, who must in the same manner indorse upon it his allowance or rejection. If the executor or administrator, or the judge, refuse or neglect to indorse such allowance or rejection for ten

days after the claim has been presented to him, such refusal or neglect may, at the option of the claimant, be deemed equivalent to a rejection on the tenth day; and if the presentation be made by a notary, the certificate of such notary, under seal, shall be *prima facie* evidence of such presentation and the date thereof. If the claim be presented to the executor or administrator before the expiration of the time limited for the presentation of claims, the same is presented in time, though acted upon by the executor or administrator and by the judge, after the expiration of such time. If the claim be payable in a particular kind of money or currency, it shall, if allowed, be payable only in such money or currency.

NOTE.—The amendment fixes the time within which the claimant must present his claim to the judge, when he has received it with the approval of the executor or administrator thereon.

SECTION 1561. To be amended to read as follows:

Sec. 1561. When property is directed by the will to be sold, or authority is given in the will to sell property, the executor may sell any property of the estate without order of the court, and at either public or private sale, and with or without notice, as the executor may determine; but the executor must make return of such sales as in other cases; and if directions are given in the will as to the mode of selling, or the particular property to be sold, such directions must be observed. In either case, no title passes unless the sale be confirmed by the court. Whenever the will omits to mention either a child of the testator born after the making of his will, as provided in section thirteen hundred and six of the Civil Code, or omits to provide for any of the children or for the issue of any deceased child of the testator, as provided in section thirteen hundred and seven of the Civil Code, the fact that such child, or any of the children, or the issue of any deceased child, of the testator, are entitled to succeed to the same portion of the testator's real and personal property as in case of intestacy, shall not impair or affect the validity of any sale of property made by authority of such will in accordance with the provisions of this section.

NOTE.—The amendment renders valid sales under a power in a will, notwithstanding the fact that a pretermitted child, or issue of any deceased child, appears.

SECTION 1582. To be amended to read as follows:

Sec. 1582. Actions for the recovery of any property, real or personal, or for the possession thereof, or to quiet title thereto, and all other actions, whether founded on contract or tort, except as otherwise provided in section fifteen hundred and ninety-two of this Code, may be maintained by and against executors and administrators, in all cases in

which the same might have been maintained by or against their respective testators or intestates.

NOTE.—This amendment, taken in connection with the proposed new Section 1592 of this chapter, will allow actions in all cases, except for libel, slander, and assault and battery, to be maintained by and against executors and administrators.

SECTION 1592. A new section to be added to Chapter VIII, Title XI, Part III, to read as follows:

Survival of right of action.

Sec. 1592. For wrongs done to the person, character, property, rights, or interests of another, for which an action may be maintained against the wrongdoer, such action may be brought by the person injured, or, after his death, by his executor or administrator, against such wrongdoer, and after the death of such wrongdoer against his executor or administrator, in the same manner and with like effect in all respects as actions founded upon contract; but this section shall not extend to actions for slander or libel, or to actions for assault and battery.

SECTION 1593. A new section to be added to Chapter VIII, Title XI, Part III, to read as follows:

Executor or administrator may bid at a foreclosure sale.

Sec. 1593. When a judgment of foreclosure of a mortgage owned by a decedent in his lifetime is rendered in favor of the executor or administrator, such executor or administrator may, on behalf of the estate, purchase the mortgaged property at the foreclosure sale thereunder, but his bid at such sale shall not exceed the amount of the judgment and costs.

SECTION 1598. To be amended to read as follows:

Sec. 1598. On the presentation of a verified petition by any person claiming to be entitled to such conveyance from an executor or administrator, setting forth the facts upon which the claim is predicated, the court, or a judge thereof, must appoint a time and place for hearing the petition, and must order notice thereof to be served upon the executor or administrator personally and by posting in three public places in the county not less than twenty-eight days before the time set for the hearing thereof, or to be published at least four successive weeks before such hearing in such newspaper in this State as he may designate.

NOTE.—It is an useless expense to require publication of notice of application to obtain a deed from the personal representative, in such cases, upon payment of the balance of the purchase price.

SECTION 1616. To be amended to read as follows:

Sec. 1616. He shall be allowed all necessary expenses in the care, management, and settlement of the estate, including reasonable fees

paid to attorneys for conducting the necessary proceedings or suits in court, and for his services such fees as provided in this chapter; but when the decedent, by his will, makes some other provision for the compensation of his executor, that shall be a full compensation for his services, unless, by a written instrument, filed in the court, he renounces all claim for compensation provided by the will. No executor or administrator, in any estate hereafter commenced, shall be allowed, in his accounts, for fees paid to attorneys under this section, any greater sum in the aggregate, than the highest amount allowable to such executor or administrator in such estate as compensation under section sixteen hundred and eighteen of this Code.

NOTE.—The amendment will restrict attorney's fees in estates to an amount not exceeding the highest statutory compensation allowable to executors or administrators.

SECTION 1747. To be amended to read as follows:

Sec. 1747. The Superior Court of each county, when it appears necessary or convenient, may appoint guardians for the estates of minors who have no guardian legally appointed by will or deed, and who are inhabitants or residents of the county, or who reside without the State and have estate within the county. Such appointment may be made on the petition of a relative or other person on behalf of the minor, or on the petition of the minor, if fourteen years of age. Before making such appointment, the court must cause such notice as such court deems reasonable to be given to any person having the care of such minor, and to such relatives of the minor residing in the county as the court may deem proper.

NOTE.—The amendment deprives the Superior Court of the power to appoint a guardian of the person of the minor in a summary proceeding, leaving the question of whether a parent is entitled to the custody of his minor child to be decided in proceedings under Section 203 of the Civil Code.

SECTION 1870. To be amended to read as follows:

Sec. 1870. In conformity with the preceding provisions, evidence may be given, upon a trial, of the following facts:

1. The precise fact in dispute;
2. The act, declaration, or omission of a party, as evidence against such party;
3. An act or declaration of another, in the presence and within the observation of a party, and his conduct in relation thereto;
4. The act or declaration, verbal or written, of a deceased person in respect to the relationship, birth, marriage, or death of any person related by blood or marriage to such deceased person; the act or declaration of a deceased person done or made against his interest in respect to his real property; and also, in criminal actions, the act or declaration

of a dying person, made under a sense of impending death, respecting the cause of his death;

5. After proof of a partnership or agency, the act or declaration of a partner, or agent, of the party, within the scope of the partnership or agency, and during its existence. The same rule applies to the act or declaration of a joint owner, joint debtor, or other person jointly interested with the party;

6. After proof of a conspiracy, the act or declaration of a conspirator against his co-conspirators, and relating to the conspiracy;

7. The act, declaration, or omission forming a part of a transaction, as explained in section eighteen hundred and fifty;

8. The testimony of a witness deceased, or out of the jurisdiction, or unable to testify, given in a former action between the same parties, relating to the same matter;

9. The opinion of a witness respecting the identity or handwriting of a person, when he has knowledge of the person or handwriting; his opinion on a question of science, art, or trade, when he is skilled therein;

10. The opinion of a subscribing witness to a writing, the validity of which is in dispute, respecting the mental sanity of the signer; and the opinion of an acquaintance respecting the mental sanity of a person, the reason for the opinion being given;

11. Common reputation existing previous to the controversy, respecting facts of a public or general interest more than thirty years old, and in cases of pedigree and boundary;

12. Usage to explain the true character of an act, contract, or instrument, where such true character is not otherwise plain; but usage is never admissible, except as an instrument of interpretation;

13. Monuments and inscriptions in public places, as evidence of common reputation; and entries in family bibles, or other family books or charts, engravings on rings, family portraits, and the like, as evidence of pedigree;

14. The contents of a writing, when oral evidence thereof is admissible;

15. Any other facts from which the facts in issue are presumed or are logically inferable;

16. Such facts as serve to show the credibility of a witness, as explained in section eighteen hundred and forty-seven.

NOTE.—The amendment consists in the elimination of the word "intimate" from Subdivision 10 thereof, and allows evidence to be given by an acquaintance respecting the mental sanity of a person, the reason for the opinion being stated. The tendency of the American courts during the last few years has been largely in this direction. (See *Hardy vs. Merrill*, 56 N. H. 227; and Schouler on Wills, Section 201.)

SECTION 1880. To be amended to read as follows:

Sec. 1880. The following persons cannot be witnesses:

1. Those who are of unsound mind at the time of their production for examination;
2. Children under ten years of age, who appear incapable of receiving just impressions of the facts respecting which they are examined, or of relating them truly;
3. Parties or assignors of parties to an action or proceeding, or persons interested in, or in whose behalf an action or proceeding is prosecuted by complaint or cross-complaint against an executor or administrator upon a claim or demand, or upon a cause of action affecting the title or right of possession of any property which was in the possession of a deceased person at the time of his death, against the estate of a deceased person, as to any matter of fact occurring before the death of such deceased person.

NOTE.—The scope of the amendment is to prevent any person interested in an estate from testifying as to facts occurring before decedent's death, not only in an action upon a claim (as the section was construed in *Myers vs. Reinsteins*, 67 Cal. 89), and also in an action against an estate relating to the title to property in decedent's possession at the time of his death. The same policy which closes the mouth of a surviving party to a transaction where a suit is upon a claim against an estate, would prevent his testifying as to facts constituting an alleged trust in property, because the elements of danger of fraud are equal in both cases.

SECTION 1906. To be amended to read as follows:

Sec. 1906. A judicial record of a foreign country may be proved by the attestation of the clerk, with the seal of the court annexed, if there be a clerk and seal, or of the legal keeper of the record, with the seal of his office annexed, if there be a seal, together with a certificate of the chief judge or presiding magistrate, or the certificate of the minister or ambassador, or a consul, vice-consul, or consular agent of the United States in such foreign country, to the effect that the person making the attestation is the clerk of the court, or the legal keeper of the record, and, in either case, that the signature of such person is genuine, and that the attestation is in due form. The signature of the chief judge, or presiding magistrate, must be authenticated by the certificate of the minister or ambassador, or a consul, vice-consul, or consular agent of the United States, in such foreign country.

SECTION 1918. To be amended to read as follows:

Sec. 1918. Other official documents may be proved as follows:

1. Acts of the executive of this State, by the records of the state department of the State; and of the United States, by the records of the state department of the United States, certified by the heads of those departments respectively. They may also be proved by public

documents, printed by the order of the Legislature or Congress, or either house thereof;

2. The proceedings of the Legislature of this State, or of Congress, by the journals of those bodies respectively, or either house thereof, or by published statutes or resolutions, or by copies certified by the clerk, or printed by their order;

3. The acts of the executive, or the proceedings of the Legislature of a sister State, in the same manner;

4. The acts of the executive, or the proceedings of the Legislature of a foreign country, by journals published by their authority, or commonly received in that country as such, or by a copy certified under the seal of the country or sovereign, or by a recognition thereof in some public act of the executive of the United States;

5. Acts of a municipal corporation of this State, or of a board or department thereof, by a copy, certified by the legal keeper thereof, or by a printed book published by the authority of such corporation;

6. Documents of any other class in this State, by the original, or by a copy, certified by the legal keeper thereof;

7. Documents of any other class in a sister State, by the original, or by a copy, certified by the legal keeper thereof, together with the certificate of the Secretary of State, judge of the Supreme, Superior, or County Court, or Mayor of a city of such State, that the copy is duly certified by the officer having the legal custody of the original;

8. Documents of any other class in a foreign country, by the original, or by a copy certified by the legal keeper thereof, with a certificate of the minister or ambassador, or consul, vice-consul, or a consular agent of the United States in such foreign country, to the effect that the document is a valid and subsisting document of such country, and that the person certifying thereto is the legal keeper of such original document; that said certificate is in due form, and that the signature of the legal keeper thereto is genuine;

9. Documents in the departments of the United States government, by the certificate of the legal custodian thereof.

NOTE.—The amendment is of Subdivision 8, of the section, and obviates the necessity of obtaining the seal of the country or sovereign to be attached to a certified copy of such document in a foreign country.

SECTION 1950. To be amended to read as follows:

Sec. 1950. The record of a conveyance of real property, or any other record, a transcript of which is admissible in evidence, must not be removed from the office where it is kept, except upon the order of a court, in cases where the inspection of the record is shown to be essential to the just determination of the cause or proceeding pending, or to a Superior Court held in the same county with such office, when the

custodian thereof or his deputy is subpœnaed to appear with such record.

NOTE.—The amendment will allow records to be used at trials in Superior Courts held in the same county where such records are kept; *provided*, the custodian or his deputy is required to appear with them.

SECTION 1991. To be amended to read as follows:

Sec. 1991. Disobedience to a subpœna, or a refusal to be sworn or to answer as a witness, or to subscribe an affidavit or deposition when required by any officer authorized to administer oaths and take testimony, may be punished as a contempt, by the court in which the proceedings are pending wherein the testimony of the party is desired, and if the witness be a party, his complaint or answer may be stricken out.

NOTE.—The amendment, taken in connection with that proposed to Subdivision 10 of Section 1209, allows the court to punish, as a contempt, the refusal of a witness to testify before a notary public when duly served with a subpœna.

SECTION 2015. To be amended to read as follows:

Sec. 2015. When an affidavit is taken before a judge or a court in another State, or in a foreign country, the genuineness of the signature of the judge, the existence of the court, and the fact that such judge is a member thereof, must be certified by the clerk of the court, under the seal thereof, or by the superior of such judge under the seal of his office.

SECTION 2016. A new section to be added to Article II, Chapter III, Title III, of Part III, to read as follows:

Testimony in foreign court, when used.

Sec. 2016. The testimony of witnesses taken by a foreign court of record, reduced to writing, and attested by the judge of such court and under the seal of the same, may be used as evidence of the kinship or identity of the parties claiming to be the heirs or legatees of a deceased person in probate proceedings in this State involving the question of such kinship or identity. If such testimony has been given and reduced to writing in a foreign language, an English translation thereof, verified by a person conversant with both languages to be a full, true, and correct translation of such writing, may accompany the same and may be received in evidence with the original.

SECTION 2021. To be amended to read as follows:

Sec. 2021. The testimony of a witness in this State may be taken by deposition in an action at any time after the service of the summons or the appearance of the defendant, and in a special proceeding after an issue of fact has arisen, or when it becomes necessary or expedient to establish a fact by evidence, therein, in the following cases:

1. When the witness is a party to the action or proceeding, or an

officer or member of a corporation which is a party to the action or proceeding, or a person for whose immediate benefit the action or proceeding is prosecuted or defended;

2. When the witness resides out of the county in which his testimony is to be used;

3. When the witness is about to leave the county where the action is to be tried, and will probably continue absent when the testimony is required;

4. When the witness, otherwise liable to attend the trial, is nevertheless too infirm to attend;

5. When the testimony is required upon a motion, or in any other case where the oral examination of the witness is not required;

6. When the witness is the only one who can establish facts or a fact material to the issue; *provided*, that the deposition of such witness shall not be used if his presence can be procured at the time of the trial of the cause.

SECTION 2024. To be amended to read as follows:

Sec. 2024. The deposition of a witness out of this State may be taken upon a commission issued from the court, under the seal of the court, upon an order of the court, or a judge or a justice thereof, on the application of either party, upon five days' previous notice to the other. If the court be a justice's court, the commission shall have attached to it a certificate, under seal by the County Clerk of such county, to the effect that the person issuing the same was an acting justice of the peace at the date of the commission. If issued to any place within the United States, it may be directed to a person agreed upon by the parties, or if they do not agree, to any judge or justice of the peace or commissioner selected by the court or judge or justice issuing it. If issued to any country out of the United States, it may be directed to a minister, ambassador, consul, vice-consul, or consular agent of the United States in such country, or to a judge of any court of record in such country, or to any person agreed upon by the parties.

NOTE.—The amendment allows a commission to be directed to a judge of any court of record in a foreign country.

SECTION 2039. A new section to be added to Article V, Chapter III, Title III, of Part III, to read as follows:

Letters rogatory to foreign courts.

Sec. 2039. Whenever it is made to appear to the court, by affidavit or otherwise, that upon requisition made by a court of record of this State, a court of record of any foreign State or government, or a judge or commissioner thereof, will cause witnesses to be examined and their depositions to be returned to the court making the requisition, letters

rogatory, addressed to such foreign court, may be issued, signed by the judge before whom the action or proceeding may be pending, and attested by the clerk, under the seal of the court. Such letters rogatory may be obtained on the application of either party, upon five days' previous notice to the other, or if no one has appeared in opposition to the claim or allegation sought to be proved, and the time within which such appearance should be made has expired, without notice. The question or questions as to which testimony is required shall be concisely stated and form part of such letters rogatory; or written interrogatories, direct and cross, may, upon the request of either party, be prepared and settled, as in the case of a deposition to be taken under a commission, and annexed to the letters, and the examination shall thereupon be had upon such interrogatories and cross-interrogatories only, unless the parties agree that other or additional questions may be put to the witness. In either case, the letters rogatory shall contain a statement that the court, upon requisition made to it by the foreign court, would likewise cause witnesses to be summoned and examined as provided in the next section. The names of the witness or witnesses to be examined may be inserted in the letters; or if the same are unknown and if no objection is made, the requisition may be to summon and examine such witnesses as may be found competent and able to testify to facts material to the question or questions at issue. A deposition taken by such foreign court, judge, or commissioner, certified by the examining court, judge, or commissioner to have been read to and approved and subscribed by the witness, and returned, in a sealed envelope, to the clerk of the court issuing the letters rogatory, may be used upon the trial or other proceeding in the same manner in which a deposition taken upon a commission regularly issued and duly taken might be used.

SECTION 2040. A new section to be added to Article V, Chapter III, Title III, of Part III, to read as follows:

Letters rogatory to the Superior Courts of this State.

Sec. 2040. Whenever it shall appear to the court, by affidavit or otherwise, that upon letters rogatory issued by a court of record of this State, a court of any foreign country will cause to be taken, certified, and returned depositions of witnesses as provided in the preceding section, it shall be the duty of the court, upon similar letters rogatory addressed to the same by such foreign court in any action or proceeding depending therein, to cause witnesses to be examined and their depositions to be certified and returned as hereinafter provided. Such letters rogatory may be filed in the office of the clerk and assigned in the same manner as an original complaint or petition; and upon motion made on behalf of the court making the requisition, or of any party

interested in having the same executed, the court shall appoint a commissioner, whose duty it shall be to summon the witness whose testimony is desired, to administer an oath to him, and to take his testimony and reduce the same to writing in the same manner as under a commission issued in an action or proceeding in this State; and his attendance may be compelled and he may be punished for failing to appear, or to answer proper questions propounded to him, in like manner. After the testimony of the witness shall have been reduced to writing and corrected and signed by the witness, the commissioner shall certify the same and return it to the court; and upon motion made for that purpose, the court shall attest the due execution of the requisition and make an order directing the clerk to return the testimony, so certified and attested, to the foreign court. Before returning the testimony, the clerk shall demand payment of all his fees due to him, which shall be the same as for similar services done by him in actions or proceedings commenced in this State, and he shall also require proof, by proper vouchers, that the fee of the commissioner taking the testimony (which shall not exceed the fee properly chargeable by him in the case of depositions taken in an action or proceeding commenced this State) has been paid.

PROPOSED AMENDMENTS TO THE POLITICAL CODE.

PRELIMINARY PROVISIONS.

SECTION 11. To be repealed.

NOTE.—The provisions of Section 11 are contained in Section 10.

CHAPTER II.

TERRITORIAL JURISDICTION OF THE STATE.

SECTION 35. A new section to be added to read as follows:

Authorizing the Governor to convey land to the United States in certain cases.

Sec. 35. Whenever the United States desires to acquire title to a tract of land, not exceeding ten acres, belonging to the State, and covered by the navigable waters of the United States, within the limits thereof, for the site of lighthouse, beacon, or other aid to navigation, and application is made by a duly authorized agent of the United States, describing the site required for one of the purposes aforesaid, then the Governor of the State is authorized and empowered to convey the title to the United States, and to cede to the said United States jurisdiction over the same, not inconsistent with the provisions hereof. Whenever the United States desires to acquire title to any piece or parcel of land extending from high-water mark out to three hundred yards beyond low-water mark, such land lying contiguous and adjacent to lands of the United States in this State which lie upon tidewaters and are held and occupied or reserved for military purposes or defense, and which is bounded by a line along high-water mark, a line three hundred yards out beyond low-water mark, and lines at right angles to high-water mark at the points where the boundaries of the adjacent lands of the United States touch high-water mark, or any part or parcel of such tract of land, for military purposes, then the Governor of the State is authorized and empowered, upon application made by a duly authorized

agent of the United States, to convey the title to the United States, and cede to the United States jurisdiction over the same; *provided*, that the title to each parcel of land hereby granted, released, and ceded to the United States in this latter case, shall be and remain in the United States only so long as the United States shall continue to hold and own the adjacent lands now belonging to the said United States; *and further provided*, that the State shall retain concurrent jurisdiction in all cases, so far that all process, civil or criminal, issuing under the authority of the State may be executed by the proper officers thereof upon any person or persons amenable to the same, within the limits of the land so ceded, in like manner and to like effect as if the title to said land had not been conveyed to the United States.

NOTE.—The first part of the section contains the provisions of "An Act concerning submarine sites for lighthouses, and other aids to navigation on the coast of this State," approved March 26, 1874. The latter part of the section is a qualified adoption of a recommendation of the honorable Secretary of War of the United States.

CHAPTER II.

SENATORIAL AND ASSEMBLY DISTRICTS.

SECTION 78. A new section to be added to read as follows:

Assembly districts.

Sec. 78. This State is hereby divided into eighty assembly districts, constituted as follows:

1. The Counties of Del Norte and Siskiyou shall constitute the First Assembly District.

2. All that portion of Humboldt County comprising the townships of Orleans, Klamath, Trinidad, Mad River, Union, Eureka, and Bucksport shall constitute the Second Assembly District.

3. All that portion of Humboldt County not included in the Second Assembly District shall constitute the Third Assembly District.

4. The Counties of Tehama and Trinity shall constitute the Fourth Assembly District.

5. The Counties of Shasta and Modoc shall constitute the Fifth Assembly District.

6. The Counties of Lassen, Plumas, and Sierra shall constitute the Sixth Assembly District.

7. The County of Butte shall constitute the Seventh Assembly District.

8. The Counties of Yuba and Sutter shall constitute the Eighth Assembly District.

9. The County of Mendocino shall constitute the Ninth Assembly District.

10. The Counties of Colusa, Lake, and Glenn shall constitute the Tenth Assembly District.

11. The County of Yolo shall constitute the Eleventh Assembly District.

12. The County of Nevada shall constitute the Twelfth Assembly District.

13. The County of Placer shall constitute the Thirteenth Assembly District.

14. The County of El Dorado shall constitute the Fourteenth Assembly District.

15. The County of Amador shall constitute the Fifteenth Assembly District.

16. All that portion of Sonoma County comprising the townships of Analay, Bodega, Mendocino, Ocean, Petaluma, Redwood, Salt Point, and Vallejo shall constitute the Sixteenth Assembly District.

17. All that portion of Sonoma County not included in the Sixteenth Assembly District shall constitute the Seventeenth Assembly District.

18. The County of Napa shall constitute the Eighteenth Assembly District.

19. The County of Solano shall constitute the Nineteenth Assembly District.

20. All that portion of Sacramento City, in Sacramento County, lying north of the center of K Street, of said Sacramento City, shall constitute the Twentieth Assembly District.

21. All that portion of Sacramento City, in Sacramento County, lying south of the center of K Street, of said Sacramento City, shall constitute the Twenty-first Assembly District.

22. All that portion of Sacramento County not included in the Twentieth and Twenty-first Assembly Districts shall constitute the Twenty-second Assembly District.

23. The County of Marin shall constitute the Twenty-third Assembly District.

24. The County of Contra Costa shall constitute the Twenty-fourth Assembly District.

25. All that portion of San Joaquin County comprising the City of Stockton shall constitute the Twenty-fifth Assembly District.

26. All that portion of San Joaquin County not included in the Twenty-fifth Assembly District shall constitute the Twenty-sixth Assembly District.

27. The County of Calaveras shall constitute the Twenty-seventh Assembly District.

28. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection where the center line of Market Street intersects the Bay of San Francisco, continuing

thence along the center of the following named streets: Market to Third, Third to Bryant, Bryant to the waters of the Bay of San Francisco; thence along the shore to Market, the place of beginning, shall constitute the Twenty-eighth Assembly District.

29. All that portion of the City and County of San Francisco bounded as follows: Commencing at the intersection of the center of Market and Third streets, continuing thence along the center of the following named streets: Market to Fifth, Fifth to Bryant, Bryant to Third, Third to Market, the place of beginning, shall constitute the Twenty-ninth Assembly District.

30. All that portion of the City and County of San Francisco bounded as follows: Commencing at the intersection of the center of Market and Fifth streets, continuing thence along the center of the following named streets: Market to Seventh, Seventh to Bryant, Bryant to Fifth, Fifth to Market, the place of beginning, shall constitute the Thirtieth Assembly District.

31. All that portion of the City and County of San Francisco bounded as follows: Commencing at the intersection of the center of Market and Seventh streets, continuing thence along the center of the following named streets: Market to Eleventh, Eleventh to intersection of Channel and Bryant, Bryant to Seventh, Seventh to Market, the place of beginning, shall constitute the Thirty-first Assembly District.

32. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection where the center of Bryant Street intersects the waters of the Bay of San Francisco, continuing thence along the center of the following named streets: Bryant to intersection of Eleventh and Channel, along Eleventh to Harrison, Harrison to Napa, Napa to the waters of the Bay of San Francisco; thence along the shore to Bryant, the place of beginning, shall constitute the Thirty-second Assembly District.

33. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection of the center of Napa Street and the Bay of San Francisco, continuing thence along the center of the following named streets: Napa to Twentieth, Twentieth to Howard, Howard to Army, Army to Precita Avenue, Precita Avenue to Colusa, Colusa to San Bruno Road or Avenue; thence along San Bruno Road or Avenue to its intersection with the boundary line dividing the counties of San Francisco and San Mateo; thence along said boundary line to the intersection of the waters of the Bay of San Francisco; thence along the shore of said bay to Napa Street, the place of beginning, shall constitute the Thirty-third Assembly District.

34. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection of the center of Market and Eleventh streets, continuing thence along the center of the

following named streets: Market to Valencia, Valencia to Ridley, Ridley to Guerrero, Guerrero to Twenty-first, Twenty-first to Howard, Howard to Twentieth, Twentieth to Harrison, Harrison to Eleventh, Eleventh to Market, the place of beginning, shall constitute the Thirty-fourth Assembly District.

35. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection of the center of Howard and Twenty-first streets, continuing thence along the center of the following named streets: Twenty-first to Church, Church to Army, Army to Guerrero, Guerrero to Old San José Road, Old San José Road to Thirtieth, Thirtieth to Mission; thence along Mission Street to Telegraph or the New County Road; thence along said road to the boundary line dividing the counties of San Francisco and San Mateo; thence along said boundary line to San Bruno Road or Avenue; thence along San Bruno Road or Avenue to Colusa, Colusa to Precita Avenue, Precita Avenue to Army, Army to Howard, Howard to Twenty-first, the place of beginning, shall constitute the Thirty-fifth Assembly District.

36. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection of the center of Guerrero and Fourteenth streets, continuing thence along the center of the following named streets: Fourteenth to South Broderick, South Broderick to Park Road; thence along Park Road to Frederick, Frederick to First Avenue, First Avenue to J, J to Fourth Avenue, Fourth Avenue to K, K to the waters of the Pacific Ocean, along the shore of said ocean to the boundary line dividing the counties of San Mateo and San Francisco; thence along the said boundary line to New County Road, along said road to Mission Road, Mission Road to Thirtieth, Thirtieth to Old San José Road, Old San José Road to Guerrero, Guerrero to Army, Army to Church, Church to Twenty-first, Twenty-first to Guerrero, Guerrero to Fourteenth, the place of beginning, shall constitute the Thirty-sixth Assembly District.

37. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection of the center of Market Street and Van Ness Avenue, continuing thence along the center of the following named streets: Market to Valencia, Valencia to Ridley, Ridley to Guerrero, Guerrero to Fourteenth, Fourteenth to South Broderick, South Broderick to Park Road, around Park Road to Frederick, Frederick to First Avenue, First Avenue to J, J to Fourth Avenue, Fourth Avenue to K, K to the waters of the Pacific Ocean; thence along the shore of said ocean northerly to Avenue D, Avenue D to Stanyan, Stanyan to Grove, Grove to Van Ness Avenue, Van Ness Avenue to Market, the place of beginning, shall constitute the Thirty-seventh Assembly District.

38. All that portion of the City and County of San Francisco bounded

as follows: Commencing at the intersection of Avenue B and the Pacific Ocean, continuing thence along the center of the following named streets: Avenue B to First Avenue, First Avenue to Turk, Turk to Broderick, Broderick to O'Farrell, O'Farrell to Van Ness Avenue, Van Ness Avenue to Grove, Grove to Stanyan, Stanyan to Avenue D, Avenue D to the Pacific Ocean; thence along the shore to Avenue B, the place of beginning, shall constitute the Thirty-eighth Assembly District.

39. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection of the center of Sacramento and Hyde streets, continuing thence along the center of the following named streets: Hyde to Sutter, Sutter to Jones, Jones to Market, Market to Van Ness Avenue, Van Ness Avenue to Sacramento, Sacramento to Hyde, the place of beginning, shall constitute the Thirty-ninth Assembly District.

40. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point of intersection of Avenue B and the waters of the Pacific Ocean, continuing thence along the center of the following named streets: Avenue B to First Avenue, First Avenue to Turk, Turk to Broderick, Broderick to O'Farrell, O'Farrell to Van Ness Avenue, Van Ness Avenue to Sacramento, Sacramento to Central Avenue, Central Avenue to California, California to the east line of the City Cemetery; thence northerly in a direct line to the Pacific Ocean; thence along the shore in a southerly and westerly direction to the place of beginning, together with the islands known as the Farallon Islands, shall constitute the Fortieth Assembly District.

41. All that portion of the City and County of San Francisco bounded as follows: Commencing at the intersection of Leavenworth Street with the waters of the Bay of San Francisco, continuing thence along the center of the following named streets: Leavenworth to Broadway, Broadway to Hyde, Hyde to Sacramento, Sacramento to Central Avenue, Central Avenue to California, along California in a direct line to its intersection with the east line of the City Cemetery; thence northerly in a direct line to the waters of the Pacific Ocean; thence along the shore of said ocean and the said bay to Leavenworth, the place of beginning, shall constitute the Forty-first Assembly District.

42. All that portion of the City and County of San Francisco bounded as follows: Commencing at the junction of the center of Market and Mason streets, continuing thence along the center of the following named streets: Mason to Broadway, Broadway to Hyde, Hyde to Sutter, Sutter to Jones, Jones to Market, Market to Mason, the place of beginning, shall constitute the Forty-second Assembly District.

43. All that portion of the City and County of San Francisco bounded as follows: Commencing at the intersection of the center of

Market and Kearny streets, continuing thence along the center of the following named streets: Kearny to Broadway, Broadway to Mason, Mason to Market, Market to Kearny, the place of beginning, shall constitute the Forty-third Assembly District.

44. All that portion of the City and County of San Francisco bounded as follows: Commencing at the point where the center of Kearny Street intersects the Bay of San Francisco, continuing thence along the center of the following named streets: Kearny to Broadway, Broadway to Leavenworth, Leavenworth to the said bay; thence along the shore of said bay to Kearny, the place of beginning, shall constitute the Forty-fourth Assembly District.

45. All that portion of the City and County of San Francisco bounded as follows: Commencing at a point where the center of Market Street intersects the Bay of San Francisco, continuing thence along the center of the following-named streets: Market to Kearny, Kearny to the Bay of San Francisco; thence along the shore of said bay to Market Street, the place of beginning, together with all the waters of the bay of San Francisco, and the islands contained therein, situated within the boundaries of the City and County of San Francisco, shall constitute the Forty-fifth Assembly District.

46. All that portion of the County of Alameda comprising the townships of Murray and Washington, and that certain portion of Eden township within the corporate limits of the town of Haywards and that portion of said Eden township known as Castro Valley election precinct, described as follows, to wit: Commencing at a point where the northerly line of the town of Haywards is intersected by a line known as the dividing line between San Lorenzo and Castro Valley election precincts; thence along said dividing line of said precincts to the middle line of San Lorenzo Creek; thence easterly and northerly along the middle line of said creek to the dividing line of Alameda and Contra Costa counties; thence easterly and southerly along said dividing line of said counties to its point of intersection with the dividing line of Eden and Murray townships aforesaid; thence along said dividing line between Eden and Murray townships to the corner of Eden, Murray, and Washington townships; thence westerly along the line dividing the townships of Washington and Eden to the middle of the mountain road from Haywards; thence northerly along the middle of the said road to the southerly boundary line of the town of Haywards; thence along the boundary line of Haywards and Castro Valley election precincts to the place of beginning, shall constitute the Forty-sixth Assembly District.

47. All that portion of the County of Alameda comprising so much of Eden township as is not included in the Forty-sixth Assembly District, and that portion of Brooklyn township lying outside of the City of

Oakland, and all of Alameda township, shall constitute the Forty-seventh Assembly District.

48. All that portion of the County of Alameda comprising that portion of the City of Oakland bounded as follows: Commencing at a point on the westerly line of the seventh ward, where the same is intersected by Thirteenth Street extended, continuing thence along the center of the following named streets: Thirteenth to Broadway, Broadway to Tenth, Tenth to Jefferson, Jefferson to Twelfth, Twelfth to Adeline, Adeline to the shore line of Oakland Creek, and thence extended to the boundary line of said City of Oakland in said creek; thence along said boundary line in said creek to the intersection of said boundary line with the boundary line between the sixth and seventh wards of said City of Oakland, and thence along said last mentioned boundary line to the place of beginning, shall constitute the Forty-eighth Assembly District.

49. All that portion of the County of Alameda comprising all that portion of the City of Oakland lying west of Adeline Street, and all that portion of the County of Alameda, being a portion of Oakland township, lying outside of said City of Oakland, bounded as follows: Commencing at the intersection of the northern charter line of the City of Oakland with the dividing line between Bay and Temescal election precincts; thence northerly along said dividing line to where it intersects the southerly line of Berkeley election precinct; thence westerly along said line of Berkeley election precinct to the dividing line between Berkeley and West Berkeley election precincts; thence northerly along said dividing line last named to the southerly line of Ocean View election precinct; thence easterly along said last mentioned line to the dividing line between Alameda and Contra Costa counties; thence northwesterly and westerly along said Alameda and Contra Costa boundary line of Alameda County and the City and County of San Francisco; thence southerly along said last named boundary line to the said northern charter line of the City of Oakland; thence easterly along said last named line to the point of beginning, shall constitute the Forty-ninth Assembly District.

50. All that portion of the County of Alameda comprising that portion of the City of Oakland bounded as follows: Commencing at the intersection of the northern boundary line of said city with Adeline Street, continuing thence along the center of the following named streets: Adeline to Twelfth, Twelfth to Jefferson, Jefferson to Tenth, Tenth to Broadway, Broadway to Twentieth or Delger Street, and thence along the continuation of said Twentieth Street to its intersection with the old charter line in the northwesterly arm of Lake Merritt; thence northerly along the old charter line following the meanderings of Cemetery

Creek to the new charter line, or Logan Street, and thence to the place of beginning, shall constitute the Fiftieth Assembly District.

51. All that portion of the County of Alameda comprising all of Oakland township outside the City of Oakland and not included in the Forty-ninth Assembly District, also that portion of Alameda County comprising the annexed district (so called) and lying east of the old charter line of the City of Oakland, as said line follows the center line of Cemetery Creek and into the northwesterly arm of Lake Merritt, north of said charter line as said line extends into the northeasterly arm of Lake Merritt, and north and east of the dividing line between Oakland and Brooklyn townships, including also all that portion of the City of Oakland bounded as follows: Beginning at a point in the northeasterly arm of Lake Merritt where the old charter line is intersected by Twentieth Street extended, thence along the center line of the following named streets: Twentieth to Broadway, Broadway to Thirteenth, Thirteenth to its point of intersection with the line dividing Oakland and Brooklyn townships, thence southerly along said line to its intersection with the charter line of the City of Oakland, thence easterly along said charter line to its intersection with the said charter line at Park Street, thence northerly along said charter line to Millbury Street; thence along said street and its extension to the boundary line between Oakland and Brooklyn townships; thence southwesterly and westerly along the old charter line to the place of beginning, comprising all the seventh ward and a portion of the fifth ward of the City of Oakland, shall constitute the Fifty-first Assembly District.

52. The County of San Mateo shall constitute the Fifty-second Assembly District.

53. The County of Santa Cruz shall constitute the Fifty-third Assembly District.

54. All that portion of the County of Santa Clara comprising the precincts of Agnews, Campbells, Jefferson, the town of Mountain View, Moreland, the town of Mayfield, the fourth ward of the City of San José, University, Willow Glen, Cupertino, and the town of Santa Clara, shall constitute, the Fifty-fourth Assembly District.

55. All that portion of the County of Santa Clara comprising the first, second, and third wards of the City of San José, and the precincts of Hester and Crandalville, shall constitute the Fifty-fifth Assembly District.

56. All that portion of the County of Santa Clara not included in the Fifty-fourth and Fifty-fifth Assembly Districts shall constitute the Fifty-sixth Assembly District.

57. The Counties of Stanislaus and Merced shall constitute the Fifty-seventh Assembly District.

58. The Counties of Tuolumne and Mariposa shall constitute the Fifty-eighth Assembly District.

59. The County of San Benito shall constitute the Fifty-ninth Assembly District.

60. The Counties of Alpine, Inyo, and Mono shall constitute the Sixtieth Assembly District.

61. The County of Monterey shall constitute the Sixty-first Assembly District.

62. The County of Madera shall constitute the Sixty-second Assembly District.

63. The County of Fresno shall constitute the Sixty-third Assembly District.

64. The County of Kings shall constitute the Sixty-fourth Assembly District.

65. The County of Tulare shall constitute the Sixty-fifth Assembly District.

66. The County of Kern shall constitute the Sixty-sixth Assembly District.

67. The County of San Luis Obispo shall constitute the Sixty-seventh Assembly District.

68. The County of Santa Barbara shall constitute the Sixty-eighth Assembly District.

69. The County of Ventura shall constitute the Sixty-ninth Assembly District.

70. All that portion of the County of Los Angeles included in and comprising the following election precincts: Lancaster, Palmdale, Llano, Acton, Elizabeth Lake, La Liebre Esperanza, Fairmount, Langs, Newhall, Los Virgines, Calabassas, San Vicente, National, Electric, Santa Monica, Monte Vista, Cahuenga, Santa Susana, Lankershim, San Fernando, Burbank, Garvanza, Glendale, La Cañada, Tejunga, North Pasadena, Pasadena city precincts numbers one, two, three, four, five, and six, shall constitute the Seventieth Assembly District.

71. All that portion of the County of Los Angeles included in and comprising the following election precincts: Claremont, Lordsburg, Spadra, Pomona city precincts numbers one, two, three, and four, Azusa, Glendora, El Monte, Farmdale, Old Mission, Monrovia, Duarte, Lamanda, Sierra Madre, San Gabriel, Alhambra, Knolls, South Pasadena, Rowland, Covina, Los Nietos, Whittier, and Rivera, shall constitute the Seventy-first Assembly District.

72. All that portion of the County of Los Angeles included in and comprising the following election precincts: San Antonio, Fruitland, Florence, Vernon, Downey, Artesia, Clearwater, Norwalk, Compton, Lugo, Enterprise, Redondo, Long Beach, Cerritas, Wilmington, San

Pedro, Catalina, Chautauqua, Ballona, Centinelli, La Dow, University, and Rosedale, shall constitute the Seventy-second Assembly District.

73. All that portion of the County of Los Angeles included in and comprising the following election precincts: Los Angeles City precincts, numbers one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, and eighteen, shall constitute the Seventy-third Assembly District.

74. All that portion of the County of Los Angeles included in and comprising the following election precincts: Los Angeles City precincts numbers nineteen, twenty, twenty-one, twenty-two, twenty-three, twenty-four, twenty-five, twenty-six, twenty-seven, twenty-eight, twenty-nine, thirty, and thirty-one, shall constitute the Seventy-fourth Assembly District.

75. All that portion of the County of Los Angeles included in and comprising the following election precincts: Los Angeles City precincts numbers thirty-two, thirty-three, thirty-four, thirty-five, thirty-six, thirty-seven, thirty-eight, thirty-nine, forty, forty-one, forty-two, forty-three, forty-four, forty-five, forty-six, and forty-seven, shall constitute the Seventy-fifth Assembly District.

76. The County of Orange shall constitute the Seventy-sixth Assembly District.

77. The County of Riverside shall constitute the Seventy-seventh Assembly District.

78. The County of San Bernardino shall constitute the Seventy-eighth Assembly District.

79. All that portion of San Diego County situated within the corporate limits of the City of San Diego shall constitute the Seventy-ninth Assembly District.

80. All that portion of San Diego County not included in the Seventy-ninth Assembly District shall constitute the Eightieth Assembly District.

At the general election in the year eighteen hundred and ninety-eight, and every two years thereafter, a member of the Assembly shall be elected in each of said hereinbefore constituted assembly districts.

SECTION 79. A new section to be added to read as follows:

Senatorial districts.

Sec. 79. This State is hereby divided into forty senatorial districts, constituted as follows:

1. The Counties of Del Norte and Humboldt shall constitute the First Senatorial District.

2. The Counties of Siskiyou, Trinity, Shasta, Modoc, and Lassen shall constitute the Second Senatorial District.

3. The Counties of Plumas, Sierra, and Nevada shall constitute the Third Senatorial District.

4. The Counties of Tehama and Butte shall constitute the Fourth Senatorial District.

5. The Counties of El Dorado and Placer shall constitute the Fifth Senatorial District.

6. The Counties of Yuba, Sutter, and Yolo shall constitute the Sixth Senatorial District.

7. The Counties of Lake and Napa shall constitute the Seventh Senatorial District.

8. The Counties of Mendocino, Colusa, and Glenn shall constitute the Eighth Senatorial District.

9. The County of Solano shall constitute the Ninth Senatorial District.

10. The County of Sonoma shall constitute the Tenth Senatorial District.

11. The Counties of Contra Costa and Marin shall constitute the Eleventh Senatorial District.

12. The Counties of Stanislaus, Merced, Tuolumne, and Mariposa shall constitute the Twelfth Senatorial District.

13. The County of Sacramento shall constitute the Thirteenth Senatorial District.

14. The Counties of Alpine, Amador, Calaveras, and Mono shall constitute the Fourteenth Senatorial District.

15. The County of San Joaquin shall constitute the Fifteenth Senatorial District.

16. The Counties of Fresno and Madera shall constitute the Sixteenth Senatorial District.

17. All that portion of the City and County of San Francisco comprised within the boundaries of the Twenty-eighth and Twenty-ninth Assembly Districts, as fixed and described in the preceding section, shall constitute the Seventeenth Senatorial District.

18. All that portion of the City and County of San Francisco comprised within the boundaries of the Thirtieth and Thirty-second Assembly Districts, as fixed and described in the preceding section, shall constitute the Eighteenth Senatorial District.

19. All that portion of the City and County of San Francisco comprised within the boundaries of the Thirty-third and Thirty-fifth Assembly Districts, as fixed and described in the preceding section, shall constitute the Nineteenth Senatorial District.

20. All that portion of the City and County of San Francisco comprised within the boundaries of the Thirty-fourth and Thirty-sixth Assembly Districts, as fixed and described in the preceding section, shall constitute the Twentieth Senatorial District.

21. All that portion of the City and County of San Francisco comprised within the boundaries of the Thirty-seventh and Thirty-eighth Assembly Districts, as fixed and described in the preceding section, shall constitute the Twenty-first Senatorial District.

22. All that portion of the City and County of San Francisco comprised within the boundaries of the Fortieth and Forty-first Assembly Districts, as fixed and described in the preceding section, shall constitute the Twenty-second Senatorial District.

23. All that portion of the City and County of San Francisco comprised within the boundaries of the Thirty-first and Thirty-ninth Assembly Districts, as fixed and described in the preceding section, shall constitute the Twenty-third Senatorial District.

24. All that portion of the City and County of San Francisco comprised within the boundaries of the Forty-second and Forty-third Assembly Districts, as fixed and described in the preceding section, shall constitute the Twenty-fourth Senatorial District.

25. All that portion of the City and County of San Francisco comprised within the boundaries of the Forty-fourth and Forty-fifth Assembly Districts, as fixed and described in the preceding section, shall constitute the Twenty-fifth Senatorial District.

26. All that portion of the County of Alameda comprised within the boundaries of the Forty-eighth and Forty-ninth Assembly Districts, as fixed and described in the preceding section, shall constitute the Twenty-sixth Senatorial District.

27. All that portion of the County of Alameda comprised within the boundaries of the Fiftieth and Fifty-first Assembly Districts, as fixed and described in the preceding section, shall constitute the Twenty-seventh Senatorial District.

28. All that portion of the County of Alameda comprised within the Forty-sixth and Forty-seventh Assembly Districts, as fixed and described in the preceding section, shall constitute the Twenty-eighth Senatorial District.

29. The Counties of San Mateo and Santa Cruz shall constitute the Twenty-ninth Senatorial District.

30. All that portion of Santa Clara County not included in the Thirty-first Senatorial District shall constitute the Thirtieth Senatorial District.

31. All that portion of Santa Clara County comprising the townships of Redwood, Almaden, Gilroy, and Burnett, and the third ward in the City of San José, and all of the township of San José outside of the City of San José, except the precincts of Berryessa and Orchard, as now constituted, shall constitute the Thirty-first Senatorial District.

32. The Counties of Inyo, Tulare, and Kings shall constitute the Thirty-second Senatorial District.

33. The Counties of San Benito and Monterey shall constitute the Thirty-third Senatorial District.

34. The Counties of San Luis Obispo and Kern shall constitute the Thirty-fourth Senatorial District.

35. The Counties of Santa Barbara and Ventura shall constitute the Thirty-fifth Senatorial District.

36. All that portion of the County of Los Angeles included in and comprising the following townships and election precincts: Antelope, Fairmount, Soledad, Los Angeles, Pasadena, South Pasadena, El Monte, and San Gabriel townships, and all that part of the City of Los Angeles included in and comprising the following election precincts: Numbers one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, and eighteen, shall constitute the Thirty-sixth Senatorial District.

37. All that portion of the County of Los Angeles included in and comprising the following election precincts: All that portion of the City of Los Angeles included in and comprising the following election precincts: Nineteen, twenty, twenty-one, twenty-two, twenty-three, twenty-four, twenty-five, twenty-six, twenty-seven, twenty-eight, twenty-nine, thirty, thirty-one, thirty-two, thirty-three, thirty-four, thirty-five, thirty-six, thirty-seven, thirty-eight, thirty-nine, forty, forty-one, forty-two, forty-three, forty-four, forty-five, forty-six, and forty-seven, shall constitute the Thirty-seventh Senatorial District.

38. All that portion of the County of Los Angeles included in and comprising the following townships: San José, Azusa, Rowland, Los Nietos, San Antonio, Downey, Long Beach, Wilmington, Catalina, Chautauqua, Santa Monica, Calabassas, San Fernando, Compton, Ballona, and Cahuenga, shall constitute the Thirty-eighth Senatorial District.

39. The Counties of San Bernardino, Orange, and Riverside shall constitute the Thirty-ninth Senatorial District.

40. The County of San Diego shall constitute the Fortieth Senatorial District.

At the general election in the year eighteen hundred and ninety-eight there shall be elected twenty Senators from the above named and constituted even-numbered districts, who shall hold office for four years. Twenty Senators shall be elected from said even-numbered districts every four years thereafter. The Senators elected at the general election in the year eighteen hundred and ninety-six in the odd-numbered districts, fixed by the apportionment act of the Legislature, approved March eleventh, eighteen hundred and ninety-one, shall continue in office for four years from and after twelve o'clock noon on the first Monday after the first day of January, eighteen hundred and ninety-seven. At the general election in the year nineteen hundred, twenty Senators shall be elected from the hereinbefore named and constituted

odd-numbered districts, who shall hold office for four years. And every four years thereafter twenty Senators shall be elected from said hereinbefore constituted odd-numbered districts.

Neither Boards of Supervisors, municipal authorities, nor any other officer or officers, shall have the power to alter the boundaries of any township, ward, election precinct, or other local subdivision, of any county, city, city and county, or town, so as to change the boundaries of any senatorial or assembly district as constituted and defined herein, or in the preceding section.

CHAPTER III.

CONGRESSIONAL DISTRICTS.

SECTION 80. A new section to be added to read as follows:

Congressional districts.

Sec. 80. For the purpose of electing Representatives in Congress, this State is hereby divided into seven congressional districts, as follows:

1. The Counties of Del Norte, Siskiyou, Modoc, Humboldt, Trinity, Shasta, Lassen, Tehama, Plumas, Sierra, Butte, Modocino, Sonoma, Napa, and Marin shall comprise the First Congressional District.

2. The Counties of Butte, Sutter, Yuba, Nevada, Placer, El Dorado, Amador, Calaveras, Mono, Inyo, Alpine, Tuolumne, Mariposa, San Joaquin, and Sacramento shall comprise the Second Congressional District.

3. The Counties of Colusa, Glenn, Yolo, Lake, Solano, Contra Costa, and Alameda shall comprise the Third Congressional District.

4. All that portion of the City and County of San Francisco bounded as follows: Commencing at a point of intersection of the center of Leavenworth Street and the Bay of San Francisco, continuing thence along the center of the following named streets: Leavenworth to Broadway, Broadway to Hyde, Hyde to Sacramento, Sacramento to Van Ness Avenue, Van Ness Avenue to Market, Market to Eleventh, Eleventh to Harrison, Harrison to junction of Napa and Twentieth; thence along Twentieth to Howard, Howard to Army, Army to Precita Avenue, Precita Avenue to Colusa, Colusa to San Bruno Road or Avenue; thence along San Bruno Road or Avenue to the boundary line dividing the counties of San Mateo and San Francisco; thence along said boundary line to the Bay of San Francisco; thence along the shore of said bay to Leavenworth Street, the place of beginning, with all the islands in the Bay of San Francisco within the boundaries of the City and County of San Francisco, shall comprise the Fourth Congressional District.

5. All that portion of the City and County of San Francisco not

included in the Fourth Congressional District, with the islands known as the Farallon Islands, together with the counties of San Mateo and Santa Clara, shall comprise the Fifth Congressional District.

6. The Counties of Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, Ventura, and Los Angeles shall comprise the Sixth Congressional District.

7. The Counties of Stanislaus, Merced, San Benito, Fresno, Madera, Tulare, Kings, Kern, San Bernardino, Riverside, Orange, and San Diego shall comprise the Seventh Congressional District.

TITLE III.

LEGAL DISTANCES IN THE STATE.

SECTION 150. To be amended to read as follows:

Sec. 150. The legal distance in this State from one place to another is the actual distance from the county seat of the county wherein the first place is located, along the route of the most direct line of public transportation, to the latter place, or place of destination. Where mileage is collected in this State, it shall be computed upon this basis.

SECTIONS 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, and 203 to be repealed.

NOTE.—The end sought to be attained by these sections will be better subserved by the elastic general provisions of Section 150.

ARTICLE II.

MEETING AND ORGANIZATION OF THE LEGISLATURE.

SECTION 237. To be amended to read as follows:

Sec. 237. The Secretary of the Senate, the Clerk of the Assembly, the Minute Clerk, and the Sergeant-at-Arms of each house, shall, at the next succeeding session of the Legislature, perform the duties of their office until their successors are elected and qualified; and the employment of all other officers and employes of any session shall terminate with the termination of the session at which they were appointed.

NOTE.—See note to Section 263.

ARTICLE III.

NUMBER, DESIGNATION, ELECTION, AND APPOINTMENT OF OFFICERS AND EMPLOYÉS OF THE LEGISLATURE.

SECTION 245. To be amended to read as follows:

Sec. 245. The officers and employés of the Senate shall consist of a President, President pro tem., a Secretary, three Assistant Secretaries (who shall be appointed by the Secretary, by and with the advice and consent of the Senate), one Sergeant-at-Arms, one Assistant Sergeant-at-Arms, one Bookkeeper for the Sergeant-at-Arms (who shall be appointed by the Sergeant-at-Arms, by and with the advice and consent of the Senate), one Minute Clerk, two Assistant Minute Clerks, one Journal Clerk, one Assistant Journal Clerk, one Engrossing and Enrolling Clerk, one Assistant Engrossing and Enrolling Clerk (to be elected when the Engrossing and Enrolling Clerk is elected), two Assistant Engrossing and Enrolling Clerks (to be elected on the thirtieth day of the session), a Chaplain, one Postmistress, one Assistant Postmistress, one Mail Carrier (who shall be Mailing and Folding Clerk), one Page to the President of the Senate, four Pages, four Porters (one of whom shall have charge of the cloak-room), four Watchmen, three Gatekeepers, one Doorkeeper, one Messenger to the Printer, one History Clerk, one Bill Clerk, one Assistant Bill Clerk, ten committee clerks, five skilled stenographers (who shall be at the service of the Senate and its committees, and under the supervision of the Secretary of the Senate), ten committee messengers (who shall be committee sergeants-at-arms); and no other officers, employés, or attachés, excepting that the Secretary may employ, at any time, temporary employés, with the consent of four fifths of the members elected to the Senate.

NOTE.—See note to Section 268.

SECTION 246. To be amended to read as follows:

Sec. 246. The officers and employés of the Assembly shall consist of a Speaker, Speaker pro tem., one Chief Clerk, three Assistant Clerks (who shall be appointed by the Chief Clerk, by and with advice and consent of the Assembly), one Sergeant-at-Arms, one Assistant Sergeant-at-Arms, one Bookkeeper to the Sergeant-at-Arms (who shall be appointed by the Sergeant-at-Arms, by and with the advice and consent of the Assembly), one Minute Clerk, three Assistant Minute Clerks, one Journal Clerk, one Assistant Journal Clerk, one Engrossing and Enrolling Clerk, one Assistant Engrossing and Enrolling Clerk (to be elected when the Engrossing and Enrolling Clerk is elected), two Assistant Engrossing and Enrolling Clerks (to be elected on the thirtieth day of each session), a Chaplain, one Postmistress, one Assistant Postmistress,

one Mail Carrier (who shall be Mailing and Folding Clerk), one Page to the Speaker, six Pages, four Porters (one of whom shall have charge of the cloak-room), four Watchmen, four Gatekeepers, one Messenger to the Printer, one History Clerk, one Bill Clerk, two Assistant Bill Clerks, twelve committee clerks, six skilled stenographers (who shall be at the service of the Assembly and its committees, and under the supervision of the Clerk), twelve committee messengers (who shall be committee sergeants-at-arms); and no other officers, employés, or attachés are to be employed, excepting that the Clerk may employ, at any time, temporary employés, with the consent of four fifths of the members elected to the Assembly.

NOTE.—See note to Section 268.

ARTICLE V.

COMPENSATION OF MEMBERS, OFFICERS, AND EMPLOYÉS OF THE LEGISLATURE.

SECTION 268. To be amended to read as follows:

Sec. 268. There shall be paid to the officers and employés of the Senate the following salaries: To the Secretary, Sergeant-at-Arms, Minute Clerk, Journal Clerk, Engrossing and Enrolling Clerk, each eight dollars per day; to Assistant Secretaries, Assistant Clerks, Assistant Sergeants-at-Arms, Bookkeepers to the Sergeant-at-Arms, one History Clerk, each six dollars per day; to the Chaplain and stenographers, each five dollars per day; to the Bill Clerks, Committee Clerks (except that one Clerk of the Judiciary Committee, and one Clerk of the Finance Committee shall receive each, six dollars per day), Postmistress, Assistant Postmistress, each four dollars per day; to the Mail Carrier, Committee Messengers, Porters, Watchmen, Gatekeepers, Doorkeepers, Messenger to the Printer, each three dollars per day; to each Page, two dollars and fifty cents per day.

There must be paid to the officers and employés of the Assembly the following salaries: To the Chief Clerk, Sergeant-at-Arms, Minute Clerk, Journal Clerk, Engrossing and Enrolling Clerk, each eight dollars per day; to the History Clerk, the Assistant Clerk, Assistant Sergeants-at-Arms, Bookkeepers to Sergeant-at-Arms, Assistant Minute Clerks, Assistant Journal Clerks, Assistant Engrossing and Enrolling Clerks, each six dollars per day; to the Chaplain and stenographers, each five dollars per day; to the Committee Clerks (except that the Clerk of the Ways and Means Committee and of the Appropriation Committee of the Assembly shall receive six dollars per day), Bill Clerks, Postmistress, Assistant Postmistress, each four dollars per day; to the Mail Carrier, Committee Messengers, Porters, Watchmen, Gatekeepers, Mes-

senger to the Printer, each three dollars per day; to each Page, two dollars and fifty cents per day.

And no officer or employé of the Senate or Assembly, whose per diem is not hereinbefore fixed, shall receive a per diem exceeding the sum of five dollars.

NOTE.—A special committee appointed at the last session of the Legislature prepared and reported the above sections as herein reported. The bill passed both houses, but failed of enactment because of certain objections by the Governor. The Governor referred the bill to this Commission for such changes as have been made in Section 237, in which amended form we now present it without recommendation.

ARTICLE XI.

SECTION 329. To be amended to read as follows:

Sec. 329. The repeal of any law creating a criminal offense, or providing for the punishment thereof, does not constitute a bar to the indictment or information and punishment of an act already committed in violation of the law so repealed, unless the intention to bar such indictment or information and punishment is expressly declared in the repealing act.

NOTE.—The amendment consists in inserting the words, "or providing for the punishment thereof," after the word offense in the first line.

ARTICLE XII.

PUBLIC REPORTS.

SECTION 333. To be amended to read as follows:

Sec. 333. The Governor shall, upon receipt of such reports, transmit the same to the Superintendent of State Printing, who shall print the whole or such part of such reports, and such number of such whole or part, as he may deem necessary and proper; *provided*, that if he does not print the whole of such report, or the number of copies of such report requested by the person, board, or officer making such report, he shall notify such person, board, or officer, in writing, of the part of such report which he does not intend to print, and if he intends printing a less number of copies than requested, of what number he intends printing. Such person, board, or officer, if dissatisfied with such decision, shall immediately appeal to the State Board of Examiners, who shall consider the question, and determine if the whole of such report should be printed, or how much, and how many copies. They shall thereupon notify the Superintendent of State Printing of such decision, and he shall comply therewith. The Superintendent of State Printing must print such reports before the first Monday in December next after the receipt thereof, except the report of the State Controller, which shall be printed before the fifteenth day of January after the receipt thereof;

provided, that in no case shall a less number of copies of such reports be printed than is necessary to furnish at least ten copies to the officers, boards, commissions, trustees, regents, or directors making such report.

SECTION 334. To be repealed.

NOTE.—The provisions of this section are incorporated in Section 333, which section has been amended to harmonize with Section 531 of this Code.

ARTICLE I.

CLASSIFICATION, NUMBER, AND DESIGNATION OF EXECUTIVE OFFICERS.

SECTION 343. To be amended to read as follows:

Sec. 343. Civil executive officers in this State are such as are provided for in, or designated as such by, the constitution, or by any act of the Legislature.

NOTE.—This amendment is suggested because there appears no good reason why all civil executive officers should be enumerated in this section, and to prevent the constant amendment of this section by additions to or withdrawals from our civil service.

ARTICLE II.

THE MODE OF ELECTION OR APPOINTMENT AND TERM OF OFFICE OF CIVIL EXECUTIVE OFFICERS.

SECTION 349. To be amended to read as follows:

Sec. 349. The Superintendent of State Printing shall be elected at the same time and place and in the same manner as the Governor of the State, and his term of office and qualifications shall also be the same.

NOTE.—Amended to conform to Section 530 of this Code.

SECTION 352. To be amended to read as follows:

Sec. 352. The State Board of Equalization shall consist of five members, as follows:

1. The Controller, who is ex officio a member of said board;
2. One member to be elected from the first district, comprising the City and County of San Francisco;
3. One member to be elected from the second district, comprising the Counties of Contra Costa, Alameda, San Joaquin, Calaveras, Amador, El Dorado, Sacramento, Placer, Nevada, Alpine, and Tuolumne;
4. One member to be elected from the third district, comprising the Counties of Marin, Sonoma, Napa, Lake, Solano, Yolo, Sutter, Yuba, Sierra, Butte, Plumas, Lassen, Tehama, Colusa, Glenn, Mendocino, Humboldt, Trinity, Shasta, Siskiyou, Modoc, and Del Norte;
5. One member from the fourth district, comprising the Counties of

San Diego, Los Angeles, Orange, San Bernardino, Riverside, Santa Barbara, Ventura, San Luis Obispo, Tulare, Kings, Monterey, San Benito, Fresno, Madera, Kern, Merced, Mariposa, Stanislaus, Santa Clara, Santa Cruz, San Mateo, Mono and Inyo.

Their term of office shall be four years, commencing on the first Monday after the first day of January following their election.

NOTE.—This amendment was made that the section might conform to Section 9, Article XIII, of the Constitution, and on its face correctly express the number of members of the Board of Equalization.

SECTION 354. To be amended to read as follows:

Sec. 354. The normal schools at San José, at Los Angeles, and at Chico, and any normal school established by the Legislature of the State of California, after the first day of January, eighteen hundred and ninety-seven, shall be known as state normal schools, and shall each have a board of trustees, constituted as follows: The Governor and Superintendent of Public Instruction shall be ex officio members of each board, and the president of each school shall be ex officio a member of the local board of the school with which he is connected. There shall also be four other members of the local board for each normal school, whose terms of office shall be four years and who shall be appointed by the Governor. It shall be the duty of the Governor, on or before the first day of July, eighteen hundred and ninety-seven, to appoint four trustees as members of each of the local boards, one to serve for one year, one for two years, one for three years, and one for four years, and thereafter to fill vacancies in such board, the terms of service thereafter to be for four years, and to begin July first of each fourth year.

SECTION 361. To be repealed.

NOTE.—The board of health provided for by this section, and Sections 3042 to 3049, has been dispensed with and superseded by a board of health provided for in the charter of the city. Approved February 7, 1893. (See Stats. 1893, pp. 545, 598.)

SECTION 364. To be amended to read as follows:

Sec. 364. The Board of Examiners shall consist of the Governor, the Secretary of State, the Attorney-General, or in his absence the Assistant Attorney-General. The secretary of the board shall be ex officio member of the board, to act only when but one other member of the board is present.

NOTE.—The amendment consists in providing for the qualifications of the Assistant Attorney-General, as provided for in Section 472.

SECTION 367. To be amended to read as follows:

Sec. 367. The Board of State Prison Directors are appointed and hold their offices as prescribed in the constitution and the special statute creating the board.

SECTION 368. To be amended to read as follows:

Sec. 368. The following executive officers are appointed by the Governor with the consent of the Senate:

1. The trustees of the state burying-ground; the trustees of the asylum for the deaf, dumb, and blind; the trustees of the California home for the care and training of feeble-minded children; harbor commissioners for the Bay of San Diego; a board of state harbor commissioners for the Bay of San Francisco; members of the state board of health; directors of the insane asylum at Stockton; the insurance commissioner; the port wardens; directors of the state prisons; trustees of the state reform school for juvenile offenders; the regents of the state university. These officers hold their office for the term of four years, except the directors of the state prisons, whose term shall be ten years;

2. The fish commissioners, the pilot commissioners, the pilots for each harbor where there is not a board of pilot commissioners. These officers hold office during the Governor's pleasure.

NOTE.—The amendment consists in dropping from the list such offices as have been abolished, and including such offices as have been provided for by later enactment. The term of trustees of state burying-ground is extended to four years.

SECTION 369. To be repealed, as its purpose is served by the preceding section.

ARTICLE V.

OF THE SECRETARY OF STATE.

SECTION 408. To be amended to read as follows:

Sec. 408. In addition to the duties prescribed by the constitution, it is the duty of the Secretary of State:

1. To attend at every session of the Legislature, for the purpose of receiving bills and resolutions thereof, and to perform such other duties as may be devolved upon him by resolution of the two houses, or either of them;

2. To keep a register of and attest the official acts of the Governor;

3. To affix the great seal, with his attestation, to commissions, pardons, and other public instruments to which the official signature of the Governor is required;

4. To record, in proper books, all conveyances made to the State, and all articles of incorporation filed in his office; and to file in his office all documents required or directed by law to be filed therein, upon receipt of the fees allowed by law for such filing;

5. To receive, and record in proper books, the official bonds of all the officers whose bonds are fixed by part three of this Code, and then deliver the originals to the State Treasurer;

6. To record, in a proper book, all changes of names certified to him by the County Clerks, in the manner in which such record is now made;

7. To take and file in his office receipts for all books distributed by him, and to direct the County Clerk of each county to do the same;

8. To certify to the Governor the names of those persons who have received at any election the highest number of votes for any office, the incumbent of which is commissioned by the Governor;

9. To furnish, on demand, to any person paying the fees therefor, a certified copy of all or any part of any law record, or other instrument, filed, deposited, or recorded in his office;

10. To notify, in writing, the District Attorney of the proper county of the failure of any officer in his county to file in his office his sworn statement of fees received by such officer;

11. To present to the Legislature, at the commencement of each session thereof, a full account of all purchases made and expenses incurred by him in furnishing fuel, lights, and stationery;

12. To keep a fee-book, in which must be entered all fees, commissions, and compensation of whatever nature or kind by him earned, collected, or charged, with the date, name of payer, paid or not paid, and the nature of the service in each case, which book must be verified annually by his affidavit entered therein;

13. To file in his office descriptions of seals in use by the different state officers, and furnish such officers with new seals whenever required.

14. To discharge the duties of member of the State Board of Examiners, State Capitol Commissioner, State Sealer of Weights and Measures, and all other duties required of him by law;

15. To report to the Governor, at the time prescribed in section three hundred and thirty-two of this Code, a detailed account of all his official actions since his previous reports, and accompanying the report with a detailed statement, under oath, of the manner in which all appropriations for his office have been expended;

16. He must distribute of the bound volumes of the decisions of the Supreme Court as soon as he receives them:

(1) To each State, one copy;

(2) To the library of Congress, the State library, and the Supreme Court library, two copies each;

(3) To each department of this State, and to each of the United States district judges for this State, justices of the Supreme Court, and judges of the Superior Courts, one copy;

(4) To each District Attorney and County Clerk, one copy;

(5) To the reporter of the decisions, ten copies.

SECTION 415. To be repealed.

NOTE.—No further necessity exists in this State for a Spanish edition of our Statutes, while Article IV, Section 24, of the Constitution, provides that the laws shall be published in no other than the English language.

SECTION 416. To be amended to read as follows:

Sec. 416. The Secretary of State, for services performed in his office, must charge and collect the following fees:

For filing a certified copy of original or amended articles of incorporation of any railroad, telegraph, or telephone company, twenty dollars;

For filing a certified copy of original or amended articles of incorporation of any company not hereinbefore in this section mentioned, five dollars;

For filing a certified copy of any certificate of the increase or decrease of the capital stock of a corporation, ten dollars;

For filing a certified copy of any certificate creating or increasing the funded indebtedness of any corporation, ten dollars;

For filing any document relative to a corporation, directed or required by law to be filed, not hereinbefore in this section mentioned, five dollars;

For furnishing a copy of any document on file in his office, fifteen cents per folio;

For certifying a copy of any document on file in his office, five cents per folio;

For affixing the great seal of the State, two dollars;

For recording any official bond, five dollars;

For each commission or passport, signed by the Governor and attested by the Secretary of State, except pardons, military commissions, and extradition papers, five dollars;

For each patent for land issued by the Governor, if for one hundred and sixty acres or less, one dollar; and for each additional one hundred and sixty acres or fractional part thereof, one dollar;

For filing trademark, three dollars;

For filing and recording notice of appointment of agent, five dollars;

For filing map and profile of the final location of any railroad, five dollars;

For filing certified copy of official oath of notary public, one dollar;

For recording miscellaneous documents or papers, twenty-five cents per folio;

For searching records and archives of the State, one dollar;

For filing certified copy of an order of the Superior Court changing the name of a corporation, three dollars.

No member of the Legislature or state officer shall be charged for any search relative to matters appertaining to the duties of their offices; nor shall they be charged any fee for a certified copy of any law or resolution passed by the Legislature relative to their official duties.

All fees collected by the Secretary of the State must, at the end of each month, be paid into the state treasury, and shall constitute the state library fund.

ARTICLE X.

REGISTER OF THE STATE LAND OFFICE.

SECTION 501. To be amended to read as follows:

Sec. 501. The register must charge and collect fees as follows: For each certificate of purchase, duplicate, or patent, three dollars; for certifying a contested case to Superior Court, three dollars; for copies of papers in his office, ten cents per folio, and fifty cents for the certificate with the seal attached; and such other fees as may be allowed by law. All fees received by the register must be disposed of as provided in title eight of part three of this Code.

NOTE.—The amendment consists of substituting the word “superior” for “district” in designating the court in the above section.

ARTICLE XII.

SUPERINTENDENT OF STATE PRINTING.

SECTION 526. To be amended to read as follows:

Sec. 526. It is the duty of the Superintendent of State Printing:

1. To print the laws; the journals of the Legislature; reports of state officers; public documents ordered to be printed by the Legislature, Supreme Court, state university, state normal schools, state asylums, state reform schools, state prisons, all state officers, boards, bureaus, commissions, and trustees; the bills, resolutions, and other job printing which may be ordered by either of the two houses of the Legislature, and all other public printing for the State, unless otherwise expressly ordered by law;

2. To publish, prefixed to each volume of the laws, the names and place of residence of the Governor, and other executive officers of the State, Lieutenant-Governor, Senators, and Representatives in the Legislature, the presiding officers of the Senate and Assembly, and of commissioners of the State of California residing out of the State, and in office at the time of such publication;

3. To perform the duties required by the provisions of article twelve, chapter two, title one, part three, of this Code, and such other duties as are imposed upon him by law;

4. He shall keep in his office, open to public inspection, a time-book, containing the name of every employé connected with the state printing office, the time employed, the rate of wages, and amount paid; and he shall certify, under oath, to the correctness of all claims for services rendered and materials furnished, which certificate shall be attached to and presented with each claim that shall be presented to the Board of

Examiners for allowance, and no such claim shall be certified or allowed unless it is fully itemized;

5. He shall file, in the office of the Secretary of State, all proposals, bids, contracts, bonds, and other papers appertaining to the awarding of contracts now in his possession, or which may hereafter come into his possession, retaining in his office copies of the same; and the Secretary of State shall promptly furnish the State Board of Examiners, for their use, certified copies of all such papers;

6. All printing required by any of the state departments, institutions, boards, or any state officer, for the State, the order for the same shall be made out upon a printed blank, with voucher attached, to be furnished by the Superintendent of State Printing, and forwarded to the office of said Superintendent, who shall enter, upon a book kept in his office for that purpose, a transcript of said order; and shall return with the work, when completed, to the person ordering the same, the original order, with a duplicate voucher attached; said voucher to be signed by the person receiving the work, and returned to the Superintendent of State Printing, and both original and duplicate orders shall be kept on file in his office, and shall be a sufficient voucher for said work. The Superintendent of State Printing shall enter upon a book, to be kept for such purpose, the name, quantity, and weight of paper used for each order printed. He shall also certify, under oath, that the items constituting the claim attached were incurred in the manner and on the dates shown in said bills, and that the materials described in the annexed account were of the quality, kind, and weight required, and that the services named in the annexed account were actually rendered, and the money is to be paid, as therein mentioned, and solely for the benefit of the State; and no claim arising under any contract shall be allowed or paid unless accompanied by such certificate. He shall also retain and file in his office one copy or sample of each blank, circular, pamphlet, book, legislative bill, file, or report, or any other work emanating from the state printing office, excepting blank books, of which he shall file only sample sheets. Said copies or samples shall bear a uniform number and date with the voucher, and shall be preserved one year. Copy for all printing, except job work, must be furnished to the Superintendent of State Printing, typewritten, or written legibly, on paper, legal cap or letter size, except in cases of tables or diagrams which cannot be confined to above-mentioned size; and written on one side only. The Superintendent of State Printing is hereby authorized to reject all copy not conforming to the above requirements;

7. No printing for the Senate, or any committee of the same, shall be executed except upon an official order of the secretary, and no order for any printing shall be made by that officer unless the same is ordered by a majority vote of the Senate. All printing done for the

Senate shall be delivered to the sergeant-at-arms of that body, whose duty it shall be to distribute one third of the copies of any document printed to the members of the Senate, and two thirds to the sergeant-at-arms of the Assembly, who shall receipt therefor, for distribution to the members thereof. There shall be printed such number of copies of all bills, resolutions, and reports for the Senate as shall be ordered by that body;

8. No printing for the Assembly, or any committee of the same, shall be executed except upon an official order of the chief clerk, and no order for any printing shall be made by that officer unless the same is ordered by a majority vote of the Assembly. All printing done for the Assembly shall be delivered to the sergeant-at-arms of that body, whose duty it shall be to distribute two thirds of the copies of any document printed to the members of the Assembly, and one third to the sergeant-at-arms of the Senate, who shall receipt therefor, for distribution to the members thereof. There shall be printed such number of copies of all bills, resolutions, and reports for the Assembly as shall be ordered by that body;

9. The receipts of the respective sergeants-at-arms of the Senate and Assembly shall be a sufficient voucher to the Superintendent of State Printing for all work done for either house.

SECTION 527. To be amended to read as follows:

Sec. 527. Whenever any message or document, in book form, is ordered printed by either house, four hundred and eighty copies thereof, in addition to the number ordered, must be struck off and retained in sheets, and bound with the journals of the house ordering the same, as an appendix. Of bills ordered printed, when the number is not fixed in the order, there must be printed five hundred copies.

NOTE.—The number of bills and other legislative documents in both of the above sections has been increased, as two hundred and forty copies have proven totally inadequate for several years, and the practice has been for each house, by resolution, to fix the number at five hundred at the beginning of each session.

SECTION 528. To be amended to read as follows:

Sec. 528. There must be printed, and bound in law sheep, of the laws of each session of the Legislature such number of volumes as in the judgment of the Superintendent of State Printing will be required by the Secretary of State for sale or distribution under the law, not exceeding three thousand five hundred copies, to be deposited with the Secretary of State, who, after retaining a sufficient number of said volumes for distribution in accordance with the provisions of section four hundred and nine of this Code, shall deposit one hundred copies with the state library; the remaining copies to be sold at a price to be fixed by the State Board of Examiners, not to exceed three dollars per

bound volume for single copies; and when ten or more copies are desired by any citizen at one time, then there shall be a discount of ten per cent from said established price; *provided*, that any such citizen purchasing ten or more copies shall agree with and file an affidavit with the Secretary of State, certifying that such copies have not been purchased for resale in lots of more than five copies, nor at a greater price than the maximum price fixed by the State Board of Examiners for their sale by the State. Stereotype plates shall be made, and whenever the Secretary of State has less than fifty copies on hand, the Superintendent of State Printing shall print from said plates and bind in law sheep such number of copies as shall be ordered by the Secretary of State, and deliver the same to the Secretary of State, to be sold by him as herein provided; the moneys thus received to be paid into the state treasury at the end of each month, and to be added to and constitute part of the fund for the support of the state printing office.

Whenever any bill, joint or concurrent resolution is passed to enrollment, by either the Senate or Assembly, the committee on enrollment of the house in which the bill, joint or concurrent resolution originated, shall transmit the same without delay to the Superintendent of State Printing, who shall receipt for all such bills and resolutions, and proceed at once to have the same printed, in the order in which received, and in the measure prescribed by law for statutes. So soon as printed, one copy, with the proper blanks for the signatures of the officers whose duty it is to sign enrolled bills, shall be printed on bond paper, which, together with the engrossed bill, shall be sent to the committee on enrollment of the house in which the bill originated. Said committee shall compare such copy with the engrossed bill, and, if it is found to be correct, shall present it to the proper officers for their signatures. When such officials shall have signed their names thereon, as required by law, it shall be an enrolled bill, and shall be transmitted to the Governor for his approval. If the same is signed by the Governor and becomes a law, the printed law shall go then to the Secretary of State and become the official record. Whenever a law is signed by the Governor, official notice shall be forwarded, in writing, to the Superintendent of State Printing, informing him of the fact. Upon the receipt of said official notice, the Superintendent of State Printing shall cause to be printed, for the use of the Legislature, five hundred copies of said law, joint or concurrent resolution, to be distributed one third to the Senate and two thirds to the Assembly, the sergeants-at-arms of the respective houses to receipt to the Superintendent of State Printing for the same, whose receipt shall be a proper voucher for the work. The Superintendent of State Printing shall also cause to be printed of all laws, as fast as signed by the Governor, five hundred copies, the same to be immediately distributed to the County Clerks of the various counties of the State, for the use of that

official and the Superior Judges of his county. He shall also cause to be printed the requisite number of sheets to make the number of the copies of the statutes required by law to be printed, and one composition of type shall answer the purpose of printing the three editions. Of the journals and appendices of the Senate and Assembly, there must be printed four hundred and eighty copies, in one volume or more, as may be required by the size thereof. The Superintendent of State Printing shall have the laws, journals of Senate and Assembly, and the appendices thereto, properly indexed and bound, the laws in full law sheep binding, and the journals and appendices in half law sheep binding, marble sides, and deliver the same to the Secretary of State for distribution as soon as practical after the final adjournment of the Legislature; the receipt of the Secretary of State shall be his voucher therefor.

SECTION 529. To amended to read as follows:

Sec. 529. Printing must be done as follows: The laws, journals, messages, and other documents in book form, must be printed solid, with long primer type, on good white paper; each page, except of the laws, must be thirty-three ems wide and fifty-eight ems long, including title, blank line under it, and foot line; of the laws the same length, and twenty-nine ems wide, exclusive of marginal notes, which notes must be printed in nonpareil type, seven ems wide. Figure work, and rule and figure work, in messages, reports, and other documents in book form, must be on pages corresponding in size with the journals, if it can be brought in by using type not smaller than nonpareil; if not, it must be executed in a form to fold and bind with the volume. Bills, and other work of a similar character, must be printed with long primer type, on plain white paper, commencing the heading one fourth of the length of the sheet from its top, and be forty-six ems wide and seventy-three ems long, including running head, blank line under it, and foot line, and between each printed line there must be a white line corresponding with the body of the type, and each line must be numbered. Blanks must be printed in such form, and on such paper, and with such sized type, as the officers ordering them may direct, subject to the approval of the Superintendent of State Printing. The laws must be printed without chapter headings, and without blank lines, with the exception of one head line, one foot line, two lines between the last section of an act and the title of the next act. When there is not space enough between the last section of an act to print the title and enacting clause, and one line of the following act, upon the same page, such title may be printed upon the following page. The journals must be printed without blank lines, with the exception of one head line, one foot line, and two lines between the journal of one day and

that of the following day. In printing the ayes and noes, the word "ayes" and the word "noes" must be run in with the names.

NOTE.—The amendment consists in changing the words "white plain cap paper" to read "plain white paper," and in providing that the form and style of certain printing shall be "subject to the approval of the Superintendent of State Printing." This last to prevent unreasonable and very expensive requisitions for printing from captious officials.

SECTION 531. To be amended to read as follows:

Sec. 531. The duties of the Superintendent of State Printing shall be as follows: He shall have the entire charge and superintendence of the state printing and binding. He shall take charge of, and be responsible on his bond for, all manuscripts and other matter which may be placed in his hands to be printed, bound, engraved, or lithographed, and shall cause the same to be promptly executed. He shall purchase all supplies and materials for the state printing office, in such manner as he shall deem most advantageous to the State. He shall receive from the Senate or Assembly all matter ordered by either house to be printed and bound, or either printed or bound, and shall keep a record of the same, and of the order in which it may be received; and when the work shall have been executed, he shall deliver the finished sheets or volumes to the sergeant-at-arms of the Senate or Assembly, or of any department authorized to receive them, whose receipt therefor shall be a sufficient voucher to the said Superintendent of State Printing for their delivery. He shall receive, and promptly execute, all orders for printing or binding required to be done for the various state officers; *provided*, that the said Superintendent of State Printing shall have discretionary authority to revise, reduce, or decline to execute any order, or part of any order, which, in his judgment, is unnecessary or unwarranted by law, and which will tend to unnecessarily consume the appropriation for support of the state printing office; *and provided further*, that in the event that any state officer, board, commission, or institution shall consider the decision of the said Superintendent of State Printing unfair, he may refer the matter to the State Board of Examiners, which board shall determine the matter. He shall employ such compositors, pressmen, and assistants as the exigency of the work from time to time requires, and may at any time discharge such employes; *provided*, that at no time shall he pay said compositors, pressmen, or assistants a higher rate of wages than is paid by those employing printers in Sacramento for like work. He shall at no time employ more compositors or assistants than the absolute necessities of the state printing may demand, and he shall not permit any other than state work to be done in the state printing office. The Superintendent of State Printing shall make a biennial report, in writing, to the Governor, embracing a record of the complete transactions of his

office for the two preceding fiscal years, which report shall show, in detail, all the items of expense attending the state printing and all the expenses of the office, including repairs and the purchase of materials of all kinds. Said report shall also state the number of reams and various kinds of paper delivered to him, and the amount and quality remaining on hand, which report shall be printed, biennially, for the use of the Legislature.

SECTION 534. To be amended to read as follows:

Sec. 534. The annual salary of the Superintendent of State Printing shall be three thousand dollars. He may appoint a Deputy Superintendent of State Printing, who shall receive a salary of two thousand four hundred dollars per annum.

NOTE.—The amendment consists in eliminating surplus provision of the original section, and in providing for the appointment of a deputy, which official shall take the place of, exercise the same authority, perform the same services, and receive the same salary as the present chief clerk or bookkeeper in the superintendent's office.

SECTIONS 535 and 536. To be repealed.

NOTE.—The above sections are obsolete, and have no proper application to the state printing office as now conducted.

SECTION 537. To be amended to read as follows:

Sec. 537. The State Treasurer is hereby authorized, when the general fund is exhausted, to advance the money on the Controller's warrants, drawn for wages and salaries of the employés in the state printing office, out of any public fund in the treasury, which warrants shall be his vouchers until there is money in the general fund to cancel them; *provided*, that this section shall not apply to any fund against which there are any warrants then due, or to become due, or so as to keep claimants out of their just demands.

NOTE.—The amendment consists in omitting the last sentence of the original section, as the same has now no proper application.

ARTICLE XIII.

SEALER OF WEIGHTS AND MEASURES.

SECTIONS 561, 562, 563, 564, 565, 566, and 567, as they now exist, to be transferred from Article XIV and made to constitute Article XIII, and renumbered, as follows: Section 561 to be renumbered 548; Section 562 to be renumbered 549; Section 563 to be renumbered 550; Section 564 to be renumbered 551; Section 565 to be renumbered 552; Section 566 to be renumbered 553; Section 567 to be renumbered 554.

SECTIONS 548, 549, 550, 551, 552, 553, and 554 to be repealed.

NOTE.—The office of State Geologist has fallen into disuse, and was practically abolished by Act of March 27, 1874. (Stats. 1873-74, page 694.)

We recommend that Article XIV, as reconstructed, shall read as follows:

ARTICLE XIV.

BOARD OF BANK COMMISSIONERS.

SECTION 555. A new section to be added to read as follows:

Board of Bank Commissioners.

Sec. 555. The State Board of Bank Commissioners shall continue to exist, and its present members shall hold office until the expiration of the term for which they were appointed, and until their successors are appointed and qualified. Upon the expiration of the term of each of the incumbents, the Governor shall appoint a person to the office of Bank Commissioner for the term of four years and until his successor is appointed and qualified. No two commissioners appointed shall be residents of the same section of the State. No appointee shall have official connection with, or be in the employ of, any savings bank, bank, or banking company, or of any person, partnership, association, or corporation engaged in the business of banking or publicly receiving money or credits on deposit, nor shall they, during their term of office, hold or be interested, directly or indirectly, in the stock, business, or other property of such person, partnership, association, or corporation. Before entering upon the duties of his office, each appointee shall execute an official bond in the sum of twenty thousand dollars, and take the oath of office as prescribed by the Political Code for state officers. The State Board of Bank Commissioners shall have their office in the City of San Francisco.

SECTION 556. A new section to be added to read as follows:

Duties of Bank Commissioners, to license.

Sec. 556. The duties of the Bank Commissioners shall be, to prepare and furnish to every savings bank, commercial bank, and banking company, or person or persons engaged in the business of banking or of publicly receiving money or credits on deposit, or to any other corporation incorporated under the laws of this State, or of any other State or Territory, or foreign country, doing a banking business in this State, applying therefor, a license in the form to be prescribed by them, authorizing such person, firm, association, or corporation, to transact the business of a savings bank, bank, or banking company, or to publicly receive money or credits on deposit, until the first day of July

next thereafter; to receive and place on file in their office the reports required to be made by any person, or persons, engaged in the banking business or publicly receiving money or credits on deposit, or by savings banks, banks, or banking corporations or associations; to prepare and furnish, on demand, to all persons, firms, partnerships, corporations, or associations required to make and return statements or reports to said Bank Commissioners by the provisions of this article, blank forms for such statements or reports as may by law be required of them; to make, on or before the first day of October in each year, a report to the Governor of this State, containing a tabular statement and synopsis of the several reports which have been filed in their office since their last report, and any other proceedings had or done by them under this article, showing generally the condition of the several savings, commercial, and other banking corporations, or institutions of this State, and the condition of the affairs of any person, or persons, or partnerships engaged in the business of publicly receiving money or credits on deposit, and such other matters as in their opinion may be of interest to the public, with a detailed statement, verified by their oaths, of all moneys and fees of office received by them during the same period.

SECTION 557. A new section to be added to read as follows:

Duties of commissioners as to examination of financial condition.

Sec. 557. It shall be the duty of one or more of the Bank Commissioners, as designated by the commissioners, once in each year, and as often as in their judgment may be deemed necessary, without previous notice, to visit and make, personally, a full examination of the business and affairs of each and every person, partnership, association, or corporation, mentioned in section five hundred and fifty-six of this Code; to inspect all books, papers, notes, bonds, or evidences of debt of such persons, partnerships, associations, or corporations, and all securities; to ascertain the financial condition of every such person, partnership, association, or corporation, its solvency, its ability to fulfill its obligations, and, if in their opinion, it is deemed necessary for any purpose, to report its condition to the Attorney-General and the Governor as soon as practicable after such examination. Such commissioner or commissioners must examine, under oath, any person or persons, and the members, officers, directors, trustees, servants, and employés of any association, partnership, or corporation engaged in the banking business, or publicly receiving money or credits on deposit, and any and all persons who, they believe, have knowledge in relation to the affairs and condition of the business of any such person, or persons, association, partnership, or corporation, and administer such oath personally; and whoever shall neglect or refuse, after demand and notice thereof, and without justifiable cause, to appear, or testify under oath, before the

said commissioners in the discharge of their duties, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one thousand dollars, or by imprisonment in the county jail for not less than ninety days, or by both such fine and imprisonment.

SECTION 558. A new section to be added to read as follows:

Not to transact business without license.

Sec. 558. No person, partnership, association, or corporation, shall use the name or transact the business of a savings bank, bank, or banking association or corporation, or of publicly receiving money or credits on deposit, without the license provided for in section five hundred and fifty-six of this Code; and any person, partnership, association, or corporation, violating this provision, shall forfeit to the State of California the sum of one hundred dollars per day during the continuance of the offense; and any person who enters upon, engages in, or carries on, or in any manner attends to the business or management of a savings bank, bank, or banking association, or corporation, or the business of publicly receiving money or credits on deposit, without such license, whether as manager, principal, agent, officer, employé, or otherwise, shall forfeit to the State of California the sum of one hundred dollars for every day he so enters upon, engages in, carries on, or attends to such business; and in addition to the forfeiture herein provided for, any violation of this section by any person, partnership, association, or corporation, is also hereby declared to be a misdemeanor, and on conviction thereof such person, partnership, association, or corporation, shall be punished by a fine of not less than five hundred dollars, or by imprisonment in the county jail for not less than thirty days, or by both such fine and imprisonment.

SECTION 559. A new section to be added to read as follows:

Report of financial condition to be filed with commissioners.

Sec. 559. Every person, partnership, association, or corporation, mentioned in section five hundred and fifty-six of this Code, including banks in liquidation or insolvency, shall, on or before the first day of April of each year, file with the Board of Bank Commissioners a report, in writing, verified by the oath of a person, or the members of the partnership, conducting a banking business, or publicly receiving money or credits on deposit, or by the president and secretary, or cashier, or the two principal officers of the association or corporation; *provided*, that the statement of an association or corporation shall be further verified by a majority of the board of directors of such banking association or corporation as to the correctness of the statement made by the principal officers, and as to the value of the assets therein set forth. Such report

shall show the actual financial condition of the person, partnership, association, or corporation, at twelve o'clock meridian, of the first Monday in March, by stating:

1. The amount of capital, or capital stock, and the number of shares into which it is divided;

2. The name of the person, partnership, association, or corporation, and the names of the directors or trustees, and the number of shares of stock held by each;

3. The total amount actually paid, in money, by the stockholders for capital stock, and the total amount of reserve fund;

4. The total amount due to depositors;

5. The total amount and character of any and all other liabilities, of such person, partnership, association, or corporation;

6. The amount at which the lot and building or buildings occupied by the bank or institution, for the transaction of its regular business, stand debited on its books, together with the market value of all other real estate held, whether acquired in the settlement of loans or otherwise; the amount at which it stands debited on the books of such person, partnership, association, or corporation; in what county situated, and in what name the title is vested, if not in the name of such person, partnership, association, or corporation;

7. The amount loaned on real estate, specifying the amount secured on real estate in each county separately; also, specifying the name of the person in whose name the property is held in trust or as security, in case it is held in any other name than that of the banker or banking institution, and in case the instrument creating the trust or security does not disclose the name of such banker or banking institution;

8. The amount invested in bonds, designating each particular class, and the amount thereof;

9. The amount loaned on stocks and bonds, designating each particular class, and the amount thereof;

10. The amount of money loaned on other security, with a particular designation of each class and kind of security, and the amount loaned on each;

11. The actual amount of money on hand or deposited in any other bank or place, with the name of the place where deposited, and the amount in each place;

12. Any other property held, or any amount of money loaned, deposited, invested, or placed, not otherwise herein enumerated, with the place where situate, and the value of such property, and the amounts so loaned, deposited, or placed;

13. The character of business, if any, conducted in connection with the receiving of money or credits on deposit, and the amount of such money or credits used in the conduct of the business.

The oaths of the persons and officers to the statements above required shall state that they, and each of them, have a personal knowledge of the matters therein contained, and that they believe every allegation, statement, matter, and thing therein contained to be true; and any willfully false statement in the premises shall be perjury, and shall be punished as such. The reports as provided for by this section shall, by the Commissioners, be required from each and every person, partnership, association, or corporation herein mentioned, at least twice in each year in addition to the statement required to be made as to the financial condition on the first Monday in March, and at such times as they may designate. The report shall show the actual financial condition of the person, partnership, association, or corporation, making the report, up to the close of any past day to be by the commissioners designated; and such report shall be transmitted to the commissioners by the person, partnership, association, or corporation, within fifteen days after the receipt from them of a request or requisition therefor. Any person, partnership, association, or corporation, mentioned in section five hundred and fifty-six of this Code, failing to furnish to the Bank Commissioners any report by them required under the provisions of this article, within the time herein specified, shall forfeit the sum of one hundred dollars per day during the time of such default. No savings bank shall receive the license in this article provided for, unless fifty per cent of its loans shall be secured by first mortgage, or other prior lien, on real estate situate within this State. Such loans, at the date when made, hereafter, are not to exceed fifty per cent of the market value of the security, except when made for the purpose of facilitating the sale of property owned by the association, or corporation; and it shall be unlawful for any savings or loan society, or savings bank, to purchase, invest, or loan its capital, or the money of its depositors, in mining shares or stocks. No savings bank shall receive the license in this article provided for, if, after the first day of July, eighteen hundred and ninety-seven, the charter of incorporation of such savings bank shall provide for conducting a savings bank and a commercial bank, under the same management or directory, or in the same place of business. All reports required to be made to the Bank Commissioners by the provisions of this Code shall be filed and kept on file by the Bank Commissioners in their office, and shall be open to the inspection of the public during the office hours of such Commission; *provided*, that a copy of the report required to be made by each person, partnership, association, or corporation, of the condition of the business of such person, partnership, association, or corporation, at twelve o'clock, noon, of the first Monday in March, of each year, shall be forwarded by the commissioners by the fifteenth day of April of each year, to the Assessor of the

county in which the business of such person, partnership, association, or corporation, is transacted or located.

SECTION 560. A new section to be added to read as follows:

Conduct of affairs when in involuntary liquidation.

Sec. 560. If the Bank Commissioners, on examination of the affairs of any person, partnership, association, or corporation mentioned in section five hundred and fifty-six of this Code, shall find that any such person, partnership, association, or corporation has been guilty of violating its charter or the laws of this State, or is conducting business in an unsafe manner, they shall, by an order addressed to the person, partnership, association, or corporation so offending, direct discontinuance of such illegal and unsafe practice, and a conformity with the requirements of the law and its charter. And if such person, partnership, association, or corporation shall refuse or neglect to conform with such requirements before the expiration of the time in the order specified, or if it shall appear to said commissioners and they shall unanimously decide that it is unsafe for any such person, partnership, association, or corporation to continue to transact business, it shall be the duty of the commissioners immediately to take such control of the business of such person, partnership, association, or corporation, and all the property and effects thereof, as may be necessary to prevent waste or diversion of assets, and to hold possession of the same until the order of court hereinafter mentioned, and to immediately notify the Governor and the Attorney-General of their action; and it is hereby made the duty of the Attorney-General, upon receiving such notification, to immediately commence suit in the proper court against such person, partnership, association, or corporation, and all the directors or trustees thereof, to enjoin and prohibit them from the transaction of any further business. If upon the hearing of the case the court shall find that such person, partnership, association, or corporation is solvent, and may safely continue business, it shall dismiss the action and order that the person, partnership, association, or corporation be restored to the possession of the property; but if the court shall find that it is unsafe for such person, partnership, association, or corporation to continue business, or that such person, partnership, association, or corporation is insolvent, said court shall by its decree order such person, partnership, association, or corporation into involuntary liquidation, and shall issue the injunction applied for and shall cause the same to be served according to law, and shall order the commissioners to surrender the property of the person, partnership, association, or corporation in their possession to a receiver appointed by the court for the purpose of liquidation in such proceeding, under the orders and direction of the court. The issuance of the injunction hereinbefore provided for shall, by operation of law, dissolve any and all attachments

levied upon any property of such person, partnership, association, or corporation within one month next preceding the date of the notification by the commissioners to the Governor and the Attorney-General as provided for in this section; and no attachment or execution shall, after the issuance of such injunction and during the process of liquidation, be levied upon any property of such person, partnership, association, or corporation, nor shall any lien be created thereon. If a receiver be appointed, before surrendering to him the property of the person, partnership, association, or corporation for purposes of liquidation, the person named as receiver shall execute to the people of the State of California, an undertaking, with sufficient sureties, in an amount to be fixed by the court, that he will well and truly perform all the duties devolving on him by reason of such receivership, and that he will faithfully discharge the duty of receiver in the proceeding, and obey the orders of the court therein. Every receiver appointed under the provisions of this section shall make report of the condition of the affairs under his charge to the Bank Commissioners in the same manner as the solvent banks mentioned in this article are, by law, required to do, and, in addition thereto, shall state the amount of dividends paid, debts collected, and the money realized on property sold, if any, since the previous report. The Bank Commissioners shall have the power, and it is hereby made their duty, to examine the condition of the affairs of every such person, partnership, association, or corporation in liquidation, in the same manner as in case of solvent banks, businesses, and institutions, and they shall have a general supervision of the affairs of such person, partnership, association, or corporation in liquidation. They shall have the power to limit the number of employes necessary to close up the business of any such person, partnership, association, or corporation in liquidation, and also to limit the salaries of the same, and shall do all in their power to make such liquidation as economical and as expeditious as the interests of the creditors, depositors, and stockholders will admit. If any officer or employé of any association or corporation solvent, insolvent, or in liquidation, or if any other person, shall refuse to comply with the provisions of this section, or disregard or refuse to obey the directions of said Bank Commissioners, given in accordance with the provisions of this article, such person, officer, or employé shall be punished by a fine not exceeding five thousand dollars, or by imprisonment in the county jail not exceeding one year, or by both such fine and imprisonment. When the receiver herein provided for shall have been appointed and qualified, the duties of the Attorney-General shall end, and the court may, in its discretion, on application of the Bank Commissioners or of the receiver, appoint an attorney to act further in the proceeding. All salaries and expense of conducting such affairs in liquidation, shall be paid from the business in liquida-

tion, on approval by the Bank Commissioners and on order of the court made therein.

SECTION 561. To be amended to read as follows:

Conduct of affairs when in voluntary liquidation.

Sec. 561. Whenever any person, partnership, association, or corporation mentioned in section five hundred and fifty-six of this Code shall determine to go into voluntary liquidation, before taking any further step to that end, he or they shall notify the Bank Commissioners by written notice of such determination, and such notice shall be accompanied by a full and complete statement of their financial condition as required in section five hundred and fifty-nine of this Code. If the Bank Commissioners, on examination of the affairs of the person, partnership, association, or corporation, deem it safe and in the interest of creditors that the person, partnership, or officers or directors of the association or corporation should conduct the business thereof in liquidation, they shall grant permission to do so, and shall file a copy of the permission given, together with the notice and statement served upon them by the person, partnership, association, or corporation desiring to go into voluntary liquidation, in the Superior Court of the county in which the business of such party is located. Such proceeding in the Superior Court shall be entitled, "In the matter of the voluntary liquidation of ——."

If it shall appear to the court, at any time after the filing of the notice, statement, and permission herein provided for, and during the liquidation, from the petition of one or more of the Bank Commissioners, or any interested party, that the person or member or members of the partnership, or the directors or trustees, or other officers or employés of any association or corporation, have been guilty of fraud, malversation, or criminal negligence, or that any of them are not the proper persons to be entrusted with the closing of the affairs and business of such person, partnership, association, or corporation, in the interest of the depositors, creditors, or stockholders thereof, the said court shall cause to be issued and served upon said person, persons, officers, directors, trustees, or employés, or any of them, an order to show cause why they, or any or all of them, should not be removed from office, or from all participation in the closing of such business and affairs, which order shall briefly recite the grounds of the application, and shall be returned at a time to be fixed by the court; and if, upon the hearing, the court shall find that such person, persons, officers, directors, trustees, or employés, or any of them, ought to be removed from office, or from further participation in the closing of such business and affairs, it shall enter its order of removal accordingly, which order shall be final in the premises; and the court shall, by an order entered in the proceeding, appoint a successor for any officer so removed; and the court shall also have power

in like manner to fill all vacancies occurring in the board, and to appoint directors or trustees in their place, when, from any cause, there are no directors or trustees, or not sufficient number thereof to constitute a quorum for the transaction of the business; or when, from any cause, there are no directors or trustees, the court may order an election by the members or stockholders of such association or corporation, to be held according to law.

Subject to this right of removal and appointment, all persons, partnerships, associations, or corporations engaged in or conducting a banking business, or publicly receiving moneys or credits on deposit, when permitted to go into voluntary liquidation, shall be permitted to continue the management of the affairs of such person, partnership, association, or corporation, during the process of liquidation, under the direction of the Bank Commissioners, but not otherwise.

The affairs of every person, partnership, association, or corporation mentioned in this article, which may hereafter be permitted to go into liquidation, shall be closed, and the business thereof settled, within three years from the time it shall enter into liquidation, unless at the expiration of such time it shall obtain the consent, in writing, from a majority of the Board of Bank Commissioners, to continue in liquidation for the period of one year longer.

Every person, partnership, association, or corporation mentioned herein, that hereafter goes into liquidation, shall make report of the condition of its affairs to the Bank Commissioners in the same manner as the solvent banks mentioned in this article; and in addition thereto shall make a monthly statement of the financial condition up to the close of business on the last day of each calendar month, and forward the same, addressed to the Bank Commissioners, at their office, in the City of San Francisco. Such monthly statement shall show the amount of dividends paid, debts collected, and the amounts realized on property sold, if any, during the month covered by such report.

The Bank Commissioners have the power, and it is hereby made their duty, to examine the condition of the affairs of every person, partnership, association, or corporation in process of voluntary liquidation, in the same manner as in the case of solvent banks, and they shall have a direct supervision of the affairs of any such person, partnership, association, or corporation while in process of voluntary liquidation, and the further power to limit the number of employes thereof, and to fix the salaries of the same. And they shall do all in their power to make such liquidation as economical and as expeditious as the interests of depositors, creditors, and stockholders will admit.

If the officers or employes of any association, or corporation, or any person whose affairs are in process of voluntary liquidation, shall refuse to comply with the provisions of this article, or shall disregard or refuse

to obey the directions of said Bank Commissioners, given in accordance with the provisions of this article, such person, officer, or employé shall be deemed guilty of a misdemeanor, and shall be punished by a fine not exceeding five thousand dollars, or by imprisonment in the county jail not exceeding one year, or by both such fine and imprisonment.

SECTION 562. To be amended to read as follows:

Capital and reserve fund required.

Sec. 562. No person or partnership engaged in the business of banking or of publicly receiving money or credits on deposit, shall receive a license, as in this article provided, to transact such business, or publicly receive money or credits on deposit, unless such person or partnership shall have a bona fide cash capital of ten thousand dollars, which shall not be reduced during the continuance of such business. And of the annual net profits of such business, at least fifty per centum shall go into a reserve fund, which reserve fund shall not be diminished or reduced without the written consent of the Bank Commissioners. No savings bank, commercial bank, bank, or banking corporation, shall hereafter be incorporated in this State to conduct a savings bank and a commercial bank, or a savings bank and any other banking business, under the same directory or management, or at the same place of business where such commercial or other banking business is conducted, or to conduct a banking business in a city or town of five thousand inhabitants or under, with a capital stock of less than twenty-five thousand dollars, or in a city or town of over five thousand, and not exceeding ten thousand inhabitants, with a capital stock of less than fifty thousand dollars, or in a city or town of over ten thousand, and not exceeding twenty-five thousand inhabitants, with a capital stock of less than one hundred thousand dollars, or in a city or town of over twenty-five thousand inhabitants, with a capital stock of less than two hundred thousand dollars. Before the Secretary of State issues to any corporation that proposes to do a banking business, his certificate of the filing of the articles of incorporation, there must be filed in his office the affidavit of the persons named in said articles as the first directors of the corporation, that all the capital stock has been actually and in good faith subscribed, and at least fifty per centum thereof paid, in lawful money of the United States, to a person in such affidavit named, for the benefit of the corporation. The remainder of the capital stock must be paid in within two years after said banking corporation receives from the Commissioners its first license to transact business, and if not so paid, no further license shall be issued to it.

The directors of any savings bank, bank, or banking corporation having a capital stock, may semi-annually declare a dividend of so much of the net profits of the stockholders as they shall judge expedient; but

every such corporation shall, before the declaration of such dividend, carry at least one tenth part of the net profits of the stockholders, for the preceding half year, to its surplus or reserve fund, until the same shall amount to twenty-five per centum of its paid-up capital stock. But the whole, or any part, of such surplus or reserve fund, if held as the exclusive property of stockholders, may at any time be converted into paid-up capital stock, in which event such surplus or reserve fund shall be restored in the manner above provided, until it amounts to twenty-five per centum of the aggregate paid-up capital stock. A larger surplus or reserve fund may be created, and nothing herein contained shall be construed as prohibitory thereof. No license shall be issued to any savings bank violating the provisions of this section.

SECTION 563. To be amended to read as follows:

Use of words or terms denoting or implying a banking business.

Sec. 563. The use of the word "bank," or any other word or terms denoting or implying the conduct of the business of banking, or the use of the word "savings," alone or in connection with other words, denoting or implying the conduct of the business of a savings institution, or a savings and loan society, is hereby prohibited to all persons, firms, associations, companies, or corporations other than those subject to the supervision of the Bank Commissioners, or required by this article to report to them; and no license, as in this article provided, shall be issued by the commissioners to any corporation or other institution or concern, that does not receive money from the public as deposits in the manner customary with commercial or savings banks. Any person, firm, association, company, or corporation, not subject to the supervision of the Bank Commissioners, or not required by this article to report to them, making use of terms or adopting or employing forms or methods or practices of business implying conduct of a bank, savings bank, or savings and loan society, as by means of signs, advertisements, letterheads, billheads, blank notes, blank receipts, certificates, checks, circulars, or any written or printed, or partly written and partly printed, paper whatever, having thereon any artificial or corporate name or other word or words indicating that such business is the business of a bank, savings bank, or savings or loan society, shall forfeit for each day the offense is continued the sum of one hundred dollars, to be recovered as provided in this article.

SECTION 564. To be amended to read as follows:

Sec. 564. Whenever any of the officers, directors, agents, or employés of any commercial bank, or banking corporation, shall make a loan of such commercial bank, or banking corporation, of any sum of money for which such officer, director, agent, or employé shall give to such

commercial bank, or banking corporation, a promissory note or other obligation for the payment of such loan, such promissory note or obligation shall be approved by a majority of the members of the board of directory of such bank, who are not directly or indirectly interested in said loan, and such approval shall be indorsed upon such note or obligation executed to the commercial bank, or banking corporation. And no officer, director, agent, or employé of any commercial bank, or banking corporation, shall make any overdraft in his own behalf, or by his indorsement of the note or obligation of another person, unless such indorsement be approved by a majority of the board of directory, such approval to be indorsed upon the note or obligation executed to such commercial bank, or banking corporation. The Bank Commissioners shall, upon information that the provisions of this section have been violated by any officer, director, agent, or employé of any commercial bank, or banking corporation, by petition, apply to the Superior Court of the county in which such commercial bank, or banking corporation, is located, asking for the removal of such officer, director, agent, or employé from the office held by such person in such commercial bank, or banking corporation, or as a director thereof; and if it appear to the court that this section has been violated by such officer, director, agent, or employé, he shall be so removed and shall be ineligible to hold office as an officer or director of such corporation thereafter.

SECTION 565. To be amended to read as follows:

Requirement as to publication of statements.

Sec. 565. Every person, partnership, association, or corporation, doing business under a license from the Board of Bank Commissioners, shall, in the months of March and September of every year, publish, in at least one newspaper published in the county in which the principal place of business of such person, partnership, association, or corporation is situated, and shall also file for record, prior to such publication, in the Recorder's office of such county, a statement, verified by the person or partnership conducting such business, and in case of an association or corporation, by its president or manager, and by its secretary or cashier, and by a majority of the members of the board of directors or trustees of such association or corporation, of the amount of capital stock actually paid into such association or corporation, and the amount of the capital so paid in that is actually and continually used in such business; *provided*, that nothing shall be deemed capital actually paid in, except money bona fide paid into and used in the business, or money bona fide paid into the treasury of any association or corporation, and under no circumstances shall the promissory note, check, or other obligation of any director or stockholder of any association or corporation,

or of any person conducting such business, or of the member or members of any partnership transacting such business, be treated, computed, or in any manner considered as a part of such actually paid-in capital. The statement herein required to be published and verified shall show the actual condition and value of all the assets and liabilities of such business, and where the same are situated. The Recorder of every county in this State shall keep two sets of well-bound books for the recording of the sworn statements herein provided for; one of which sets of books shall be labeled "Statements of Banking Capital," and the other "Statements of Banking Assets"; and said Recorder shall, upon the payment of his fees for the same, by the person, partnership, or institution making such statement, record, separately, said sworn statements in their proper book, and shall keep a separate index of each of said sets of books. The statement herein required need not be acknowledged in order to be recorded, as herein provided, or to be used as evidence before any court in this State, and the original statement shall always remain and be kept on file in the office of said Recorder. The Recorder of every county in this State shall receive, for recording any of the sworn statements herein provided for, to be paid by the party making such statement, for every folio, twenty-five cents, and for noting on any such sworn statement the time when, and the place where, recorded, twenty-five cents, and for a certified copy of such sworn statements, twenty-five cents per folio. No person, partnership, association, or corporation doing business under a license from the Board of Bank Commissioners, shall advertise in any manner or publish a statement of the capital stock authorized or subscribed, unless he advertise and publish in connection therewith the amount of capital actually paid up. Any person, or member of a partnership, officer, manager, agent, or director of an association, or corporation, doing business under a license from the Board of Bank Commissioners, advertising in any manner or publishing a statement of the capital stock of such business or banking corporation, authorized or subscribed, without the statement in connection therewith of the amount of stock actually paid up in cash, and every person, or member of a partnership, officer, manager, or director of an association, or corporation, who shall fail to advertise or publish a statement of the capital stock of such business or banking corporation, and of the assets and liabilities thereof, as herein provided, shall be guilty of a misdemeanor, and shall be punishable by fine not exceeding five thousand dollars, or by imprisonment in the county jail not exceeding one year, or by both such fine and imprisonment.

NOTE.—This section embraces in substance the provisions of an Act concerning corporations and persons engaged in the business of banking, approved April 1, 1876, and the repeal of such Act is therefore recommended. (Banking Act, found on page 81, Deering's Civil Code.)

SECTION 566. To be amended to read as follows:

Action for collection of penalties and forfeitures.

Sec. 566. All penalties and forfeitures provided for in this article for the failure to act as herein provided, or for action hereby prohibited, shall be recovered of the party offending by civil action in the Superior Court of the county in which the business of the person, partnership, association, or corporation is located in relation to which the act was done or as to which the failure to act has occurred. On request of the Bank Commissioners, such action shall be commenced by the District Attorney of such county, and shall be conducted to final judgment by such District Attorney as civil actions for the recovery of money are conducted; *provided*, that in every case but one action shall be brought for all forfeitures or penalties made or incurred by any person or officer of an association or corporation prior to the bringing of such action, and for this purpose all causes of action existing against any person or party, for penalties and forfeitures incurred under this article, may be united in one suit, but each distinct cause of action shall be separately stated.

SECTION 567. To be amended to read as follows:

Salaries of Bank Commissioners.

Sec. 567. The Bank Commissioners shall each receive a salary of three thousand six hundred dollars per annum, and necessary traveling expenses, not to exceed, for the three commissioners, the sum of three thousand dollars per annum, to be audited by the State Controller and paid by the State Treasurer, in the same manner as the salaries and expenses of other state officers. No person, while holding any other office, or engaged in business of any kind requiring his personal attention between the hours of nine A. M. and four P. M., shall serve as Bank Commissioner.

SECTION 568. To be amended to read as follows:

Salaries and expenses.

Sec. 568. The Bank Commissioners shall have power to appoint a secretary, at a salary of two hundred dollars per month. The said commissioners shall keep their office open for business from nine o'clock A. M. until four o'clock P. M., every day, except non-judicial days. They shall procure rooms necessary for their offices, at a rent not to exceed seventy-five dollars per month. They may also provide stationery, fuel, and other conveniences necessary for the transaction of their duties, not exceeding in the aggregate the sum of five hundred dollars per annum. All expenditures authorized in this section shall be audited and paid in the same manner as the salary of the commissioners.

SECTION 569. To be amended to read as follows:

Bank Commissioners' Fund.

Sec. 569. To pay the salaries and all other necessary expenses of the commissioners, as provided for by this article, every person, partnership, association, or corporation, receiving a license, shall pay annually, in advance, to the commissioners, in gold coin, its share of the amount required to pay such salaries and expenses; the share to be paid by any person, partnership, association, or corporation to be determined by the proportion which its deposits bear to the aggregate deposits of all such persons, partnerships, associations, or corporations receiving licenses, as shown by the latest reports of such persons, partnerships, associations, or corporations to the commissioners. Said commissioners shall, upon demand made therefor, and without charge, furnish to every person, partnership, association, or corporation mentioned in this article, copies of papers, statements, and reports filed in their office, and may, as provided by this article, recover any and all moneys payable to them by any person, partnership, association, or corporation, herein mentioned; and all moneys collected or received by such Bank Commissioners, or either of them, under or by virtue of the provisions of this article, shall be by them delivered to the treasurer of this State, who shall pay the same into a fund which is hereby created, and which shall be known as the "Bank Commissioners' Fund." And the unexpended balance of all moneys heretofore paid into the state treasury by said Bank Commissioners shall be transferred to said fund and become a part thereof.

NOTE.—This article, "Board of Bank Commissioners," Section 555 to Section 569 inclusive, is constructed on the Bank Commissioners Act as amended in 1895. It is sought to make definite the authority of the Bank Commissioners in protecting the interests of creditors and stockholders, and provides for the closing up of the affairs of persons or corporations doing a banking business, by the Commissioners, when they determine the business of such institution to be unsafe, through the local court, but under such a general supervision by the Bank Commissioners that any waste or dissipation of funds or assets may be brought immediately to the attention of the court. It provides that in case of voluntary liquidation persons or corporations closing up their affairs will be under the direct control and supervision of the Bank Commissioners; that savings banks cannot be merged in commercial banks; that officers and directors cannot make loans unless the note or obligation to the corporation is approved by a majority of the directory; and overdrafts are prohibited. The provisions of the Act of April 1, 1876, concerning persons and corporations engaged in the business of banking, have been embodied in this article, and we would recommend the repeal of that Act as being of no further necessity. The Act of March 29, 1878, to protect stockholders and persons dealing with corporations of this State, has been, in substance, embodied in a new section of the Penal Code. The previous sections constituting Article XIV, being Sections 561 to 567, have been transferred to and constitute Article XIII hereof.

SECTIONS 577, 578, 579, 580, 581, 582, 583, and 584 to be repealed.

NOTE.—The office of Inspector of Gas Meters and the system of inspection proposed in the foregoing sections is in conflict with Article XI, Section 14, of the Constitution.

SECTION 611. To be amended to read as follows:

Statement, what to contain—Publication and filing.

Sec. 611. The statement mentioned in the preceding section must exhibit the financial condition and the affairs of every such corporation, person, firm, or association on the first Monday in March of each and every year and for the year then next preceding, and must be filed with the Insurance Commissioner, as follows:

1. If made by a person or corporation organized under the laws of this State, such statement must be filed with the Insurance Commissioner on or before the twentieth day of March of each year;

2. If made by a person or corporation organized under the laws of any other of the States or Territories of the United States, such statement must be filed with the Insurance Commissioner on or before the first day of April of each year;

3. If made by a person or corporation organized under the laws of any country foreign to the United States, such statement must be filed with the Insurance Commissioner on or before the twentieth day of April of each year.

The statement herein mentioned, when adjusted by the Insurance Commissioner, must be published by such corporation, person, firm, or association, daily, for the period of one week, in some newspaper published in the city where the principal office of such corporation, person, firm, or association is located.

NOTE.—The change is to fix time of filing statement to meet changes in the revenue laws.

SECTION 612. To be amended to read as follows:

Statement, what to show.

Sec. 612. Such statement, if made by a fire, marine, or inland insurance company, fidelity, steam-boiler, plate-glass, or title insurance company, or by companies organized under section four hundred and twenty of the Civil Code, must show:

First—The amount of the capital, or capital stock, specifying:

1. The number of shares into which such capital stock is divided;

2. The par value of each share of such capital stock;

3. The number of shares of such capital stock held by subscribers or purchasers thereof;

4. The amount of cash actually paid into the treasury of the association, or corporation.

Second—The property or assets held by the company, specifying:

1. The value of real estate held by such company;

2. The amount of cash on hand and deposited in banks to the credit of the company, specifying the same;

3. The amount of cash in the hands of agents, and in course of transmission;

4. The amount of loans secured by bonds and mortgages constituting the first lien on real estate, on which there is less than one year's interest due or owing;

5. The amount of loans on which interest has not been paid within one year previous to such statement;

6. The amount due the company on which judgments have been obtained;

7. The amount of stocks of this State, of the United States, or of any incorporated city of this State, and of any other stock owned by the company, specifying the amount, number of shares, and par and market value of each kind of stocks;

8. The amount of stocks held as collateral security for loans, with the amount loaned on each kind of stock, its par value and market value;

9. The amount of interest due and unpaid;

10. The amount of all other loans made by the company, specifying the same;

11. The amount of premium notes on hand on which policies are issued;

12. All other property belonging to the company, specifying the same.

Third—The liabilities of such company, specifying:

1. The amount of losses due and unpaid;

2. The amount of claims for losses resisted by the company;

3. The amount of losses in process of adjustment, or in suspense, including all reported or supposed losses;

4. The amount of dividends declared, due, and remaining unpaid;

5. The amount of dividends declared, but not due;

6. The amount of money borrowed and security given for the payment thereof;

7. Gross premiums (without any deductions) received and receivable upon all unexpired fire risks running one year or less from date of policy, reinsurance thereon at fifty per cent;

8. Gross premiums (without any deductions) received and receivable upon all unexpired fire risks running more than one year from date of policy, reinsurance thereon pro rata;

9. Gross premiums (without any deductions) received and receivable upon all unexpired marine and inland navigation risks, except time risks, reinsurance thereon at one hundred per cent;

10. Gross premiums (without any deductions) received and receivable on marine time risks, reinsurance thereon at fifty per cent;

11. Amount reclaimable by the insured on perpetual fire insurance policies, being ninety-five per cent of the premiums or deposit received;

12. Reinsurance fund and all other liabilities, except capital, under the life insurance or any other special department;

13. Unused balances of bills and notes taken in advance for premiums on open marine and inland policies, or otherwise, returnable on settlement;

14. Principal unpaid on scrip or certificates of profits, which have been authorized or ordered to be redeemed;

15. Amount of all other liabilities of the company, specifying the same;

Fourth—The income of the company during the preceding year, specifying:

1. The amount of cash premiums received;
2. The amount of notes received for premiums;
3. The amount of interest money received, specifying the same;
4. The amount of income received from all other sources, specifying the same.

Fifth—The expenditures of the preceding year, specifying:

1. The amount of losses paid;
2. The amount of dividends paid;
3. The amount of expenses paid, including commissions and fees to agents and officers of the company;
4. The amount paid for taxes;
5. The amount of all other payments and expenditures;

Sixth—1. The amount of risks written during the year;

2. The amount of risks expired during the year;

3. The amount of risks written during the year in the State of California;

4. The amount of premiums thereon.

NOTE.—The amendment requires the statement to be made by fidelity, steam-boiler, plate-glass, and title insurance companies, and adds the specifications 1, 2, 3, and 4, first subdivision. This is done to meet the requirements of the revenue laws and to facilitate the work of the Assessor.

SECTION 613. To be amended to read as follows:

Statement by life, health, and accident companies.

Sec. 613. Such statement, if made by life, health, accident, or assessment life companies, must show:

First—The amount of capital, or capital stock, of the company, specifying:

1. The number of shares into which such capital stock is divided;
2. The par value of each share of such capital stock;
3. The number of shares of such capital stock held by subscribers or purchasers thereof;
4. The amount of cash actually paid into the treasury of the association or corporation.

Second—The property or assets held by the company, specifying:

1. The value of the real estate held by the company;
2. The amount of cash on hand and deposited in banks to the credit of the company, specifying the same;
3. The amount of loans secured by bonds and mortgages on real estate, specifying the same;
4. Amount of loans secured by pledge of bonds, stocks, or other marketable securities as collateral, specifying the same;
5. Cash market value of all stocks and bonds owned by the company, specifying the same;
6. Interest due the company and unpaid;
7. Interest accrued but not due;
8. Premium notes and loans in any form taken in payment of premiums on policies now in force;
9. Gross amount of premiums in process of collection and transmission on policies in force;
10. Gross amount of deferred premiums;
11. All other assets, specifying the same;

Third—Liabilities. 1. Claims for death losses and matured endowments, due and unpaid;

2. Claims for death losses and matured endowments in process of adjustment, or adjusted and not due;

3. Claims resisted by the company;

4. Amount due and unpaid on annuity claims;

5. Trust fund on deposit, or net present value of all the outstanding policies, computed according to the American experience tables of mortality, with four and one-half per cent interest;

6. Additional trust fund on deposit, or net present value of extra and special risks, including those on impaired lives;

7. Amount of all unpaid dividends of surplus percentages, bonuses, and other description of profits to policy-holders, and interest thereon;

8. Amount of any other liability to policy-holders or annuitants, not included above;

9. Amount of dividends unpaid to stockholders;

10. Amount of national, state, and other taxes due;

11. All other liabilities, specifying the same.

Fourth—Income. 1. Cash received for premiums on new policies during the year;

2. Cash received for renewal of premiums during the year;

3. Cash received for purchase of annuities;

4. Cash received for all other premiums;

5. Cash received for interest on loans, specifying the same;

6. Rents received;

7. Cash received from all other sources, specifying the same;

8. Gross amount of notes taken on account of new premiums;
9. Gross amount of notes taken on account of renewal premiums.

- Fifth—Expenditures. 1. Cash paid for losses;
2. Cash paid to annuitants;
 3. Cash paid for lapsed, surrendered, and purchased policies;
 4. Cash paid for dividends to policy-holders;
 5. Cash paid for dividends to stockholders;
 6. Cash paid for reinsurances;
 7. Commission paid to agents;
 8. Salaries and other compensation of officers and employés, except agents and medical examiners;
 9. Medical examiners' fees and salaries;
 10. Cash paid for taxes;
 11. Cash paid for rents;
 12. Cash paid for commuting commissions;
 13. All other cash payments;
- Sixth—Balance-sheet of premium note account.
- Seventh—Balance-sheet of all the business of the company.
- Eighth—1. Total amount of insurance effected during the year on new policies;
2. Total amount of insurance effected during the year in the State of California;
 3. Premiums received during the year on risks written in the State of California.

NOTE.—As amended, assessment, life, and accident companies are added to those required to make this statement; also, specifications 1, 2, 3, and 4, as in preceding section, and for the same purpose.

SECTION 625. To be amended to read as follows:

Insurance Commissioner to furnish Assessor with certain information.

Sec. 625. The Insurance Commissioner must, within five days after the filing in his office of any of the statements required to be therein filed by the provisions of section six hundred and eleven of this Code, furnish a copy of such statement to the Assessor of the county in which the principal office of the person or corporation doing the business of insurance and filing such statement is situated, and when so requested by any Assessor, the Insurance Commissioner shall furnish such Assessor all of the data concerning premiums collected by such person or corporation and all other necessary information in relation to the business of such person or corporation as will assist the Assessor in the performance of the duties of his office.

SECTION 635. A new section to be added to read as follows:

Uniform policy of fire insurance.

Sec. 635. The Insurance Commissioner shall prepare and file in his office, on or before the first day of June, eighteen hundred and ninety-seven, a printed form, in blank, of a contract or policy of fire insurance, together with such agreement, provisions, or conditions as may be indorsed thereon, or added thereto, and form a part of such contract or policy; and such form, when so filed, shall be known and designated as the "California standard fire insurance policy," and such form shall, as near as can be made applicable, conform to the New York standard fire insurance policy, so called and known. Immediately after filing said form of policy in the office of said Insurance Commissioner, he shall have five hundred copies of the same printed, and mail a copy of the same to each company doing a fire insurance business in this State.

NOTE.—This section is to be taken in connection with the proposed Section 431 of the Civil Code.

ARTICLE XVIII.

BOARD OF EXAMINERS.

SECTION 680. To be amended to read as follows:

Sec. 680. Whenever and as often as there is in the state treasury the sum of ten thousand dollars as the proceeds of the sale of state school lands, the board must invest the same in bonds of the State of California, or in the county or consolidated city and county bonds of this State, or in the bonds of the cities of the State of California, or in the bonds of the United States; the investments to be made in such manner and on such terms as the board shall deem for the best interests of the state school fund; *provided*, that no bonds of any county, or city and county, or city shall be purchased of which the debt, debts, or liabilities at the time exceed fifteen per cent of the assessed value of the taxable property of said county, city and county, or city.

NOTE.—Amended by dropping the designation "civil funded bonds," the meaning of which is obscure, and enlarging the scope of investment to include city bonds.

SECTION 686. A new section to be added, to read as follows:

To prescribe a uniform system of accounts.

Sec. 686. A uniform system of books of account, blanks, payrolls, reports, accounts, and records shall be adopted by all officers, boards, commissions, trustees, and institutions supported by state funds, or money appropriated by the State, and chargeable with accounting for their expenditures to the State Board of Examiners. The State Board of Examiners shall prescribe and prepare a form of such books of account,

reports, payrolls, vouchers, blanks, records, and forms as shall be necessary to effect such uniformity, and shall supply a copy thereof to the boards, officers, commissions, trustees, or institutions which are to use the same, and thereafter such boards, officers, commissions, trustees, or institutions shall use the same, and no other.

ARTICLE XIX.

POWERS AND DUTIES OF OTHER EXECUTIVE OFFICERS.

SECTION 695. To be amended to read as follows:

Sec. 695. The secretary of the State Board of Health is *ex officio* vaccine agent. His powers and duties as such are prescribed by sections twenty-nine hundred and ninety-three and twenty-nine hundred and ninety-four of this Code.

SECTION 696. To be repealed to conform to the amendment of Section 368 and repeal of Sections 2949 to 2969.

ARTICLE I.

CLERK OF THE SUPREME COURT.

SECTION 749. To be amended to read as follows:

Sec. 749. The Clerk of the Supreme Court is elected at the same time, and in the same manner, as the Governor is elected, and holds his office for the same term.

NOTE.—Amended to conform to the requirements of Section 20, Article XX, of the Constitution, relating to the time of commencement of term.

ARTICLE II.

REPORTER OF THE SUPREME COURT.

SECTION 767. To be amended to read as follows:

Sec. 767. The justices of the Supreme Court shall appoint a reporter of the decisions of the Supreme Court, who shall hold his office and be removable at their pleasure.

NOTE.—Amended to conform to the provisions of Article VI, Section 21, of the Constitution.

ARTICLE I.

DISQUALIFICATIONS.

SECTION 841. To be amended to read as follows:

Sec. 841. No person is capable of holding a civil office, who, at the time of his election or appointment, is not of the age of twenty-one years, and a citizen of this State. Women over the age of twenty-one years, who are citizens of the United States, and of this State, shall be eligible to all educational offices within this State, except those from which they are excluded by the constitution.

NOTE.—The amendment consists in adding to the section as it originally existed the provisions of the Act of March 12, 1874 (Stats. 1873-74, page 356).

ARTICLE II.

RESTRICTIONS UPON THE RESIDENCE OF OFFICERS.

SECTION 852. To be amended to read as follows:

Sec. 852. The following officers must reside at and keep their offices in the City of Sacramento: The Governor, Secretary of State, Controller, State Treasurer, Attorney-General, Surveyor-General, Superintendent of State Printing, Superintendent of Public Instruction, and the Adjutant-General.

ARTICLE III.

POWERS OF DEPUTIES.

SECTION 865. To be amended to read as follows:

Sec. 865. In all cases not otherwise provided for, each deputy, or in case there be no deputy, then the chief clerk, possesses the powers and may perform the duties attached by law to the office of his principal.

ARTICLE X.

RESIGNATIONS, VACANCIES, AND THE MODE OF SUPPLYING THEM.

SECTION 1001. To be amended to read as follows:

Sec. 1001. A vacancy in the office of either the Secretary of State, Controller, Treasurer, Attorney-General, Surveyor-General, Clerk of the Supreme Court, Superintendent of Public Instruction, or Superintendent of State Printing, must be filled by a person appointed by the Governor, who shall hold his office for the balance of the unexpired term.

NOTE.—The amendment consists in providing for filling a vacancy in the offices of Superintendent of State Printing and Superintendent of Public Instruction.

CHAPTER I.

ARTICLE II.

ELECTION PROCLAMATION.

SECTION 1054. To be amended to read as follows:

Sec. 1054. Such proclamation must contain:

1. A statement of the time of election and of the offices to be filled;
2. Whenever the Legislature, at its session preceding any general election, shall have proposed any amendments to the constitution of this State, or any other question for submission to the qualified electors of this State, the Governor shall include such proposed amendments or other question in such proclamation, numbering them, respectively, in the order of their adoption by the Legislature, and giving them the additional designation of the number given them by the Legislature. In such proclamation, after such proposed amendments or other question has been set forth, the same shall be restated by number, including number given by the Legislature, in manner and form as the same shall appear upon the ballot. Such form shall be substantially as follows, the proper numbers to be inserted: "Amendment Number —, being (Senate or Assembly) Constitutional Amendment No. —. (Then a short statement or syllabus of the purposes or object of the amendment is to be inserted in brackets.) For the Amendment?" The words "Yes" and "No" are then to be inserted in manner and form as provided in section eleven hundred and ninety-seven of this Code;

3. An offer of a reward in the following form: "I do hereby offer a reward of one hundred dollars for the arrest and conviction of any and every person violating any of the provisions of title four, part one of the Penal Code, such rewards to be paid until the total amount hereafter expended for the purpose reaches the sum of ten thousand dollars."

SECTION 1055. To be amended to read as follows:

Sec. 1055. The Board of Supervisors, upon the receipt of such proclamation, must, in case of general or special elections, cause a copy of the same to be published in some newspaper printed in the county, if any, and to be posted at each place of election at least ten days before the election; and in case of special elections to fill a vacancy in the office of State Senator or member of Assembly, the Board of Supervisors, upon receipt of such proclamation, may, in their discretion,

cause a copy of the same to be published or posted as hereinbefore provided, except that such publication or posting need not be made for a longer period than five days before such election.

NOTE.—Amended by changing the word “may” to “must.”

CHAPTER III.

REGISTRATION OF ELECTORS.

SECTION 1083. To be amended to read as follows:

Sec. 1083. Every male citizen of the United States, every male person who shall have acquired the right of citizenship under or by virtue of the treaty of Queretaro, and every male naturalized citizen thereof, who shall have become such ninety days prior to any election, of the age of twenty-one years, who shall have been a resident of the State one year next preceding the election, and of the county in which he claims his vote ninety days, and in the election precinct thirty days, and whose name shall be enrolled on the great register of such county, as provided for in section ten hundred and ninety-four of this Code, shall be a qualified elector at any and all elections held within the county, city and county, city, town, or district within which such elector resides.

NOTE.—Amended to prevent conflict with Section 1094.

CHAPTER V.

BOARD OF ELECTION.

SECTION 1144. To be amended to read as follows:

Sec. 1144. If the Board of Supervisors fail to appoint the board of election, or all the members of said board fail to attend at the hour set for the opening of the polls on election day, the electors of the precinct present at that hour may appoint or elect the board. If part only of the board of election are present at the hour of opening the polls, any two members so present, of opposite political faith, shall proceed to fill the vacancies on the board; *provided*, that in each case the partisan qualifications required by section eleven hundred and forty-two of this Code be present in any person elected to fill any such vacancies.

SECTION 1145. To be amended to read as follows:

Sec. 1145. The inspector who for the time is in charge of the ballot-box and receiving the ballots, is chairman of the board, and may:

1. Administer all oaths required in the progress of an election;

2. Appoint judges and clerks, if, during the progress of an election, any judge or clerk ceases to act.

NOTE.—Amended to meet the requirements of Section 1142, which provides for two inspectors.

CHAPTER VII.

POLL LISTS.

SECTION 1174. To be amended to read as follows:

Sec. 1174. A poll list shall be kept by the clerks of election as provided for in section twelve hundred and twenty-nine, and shall be substantially of the following form:

POLL LIST.

Of the election held in the precinct of ———, in the County of ———, on the ——— day of ———, eighteen hundred and ———. A and B inspectors, C and D judges, G and H ballot clerks, and J and K tally clerks, of said election, were respectively sworn (or affirmed), as required by law, previous to their entering on the duties of their respective offices.

Number and Names of Electors Voting.

No.	Name.	No.	Name.
1	-----	4	-----
2	-----	5	-----
3	-----	6	-----

We hereby certify that the number of electors voting at this election in this precinct amounts to (here write out in full the proper number).

The County Clerk of each county shall furnish to the board of election, at each precinct, a tally sheet, to be kept as provided for in section twelve hundred and fifty-eight. Such tally list or sheet shall be printed upon a good quality of paper, and be entitled "Election return and tally list of votes polled at the general election held in ——— ward, precinct ———, County of ———, State of California, on the ——— day of ———, 18—." At the extreme left of the sheet shall be a column headed "Title of office," and in this column, immediately preceding the name of any candidate for an office, shall be printed the title of his office, or in case of officers elected from minor political divisions of a county, space shall be left for writing the title of his office. In the case of constitutional amendments or other question

to be voted upon, the name "Constitutional Amendment" or other proper descriptive title shall be printed. Immediately to the right of this column shall be another column, at the head of which shall be printed "Names of candidates and parties to which candidates belong." In this column shall be printed the names of all persons to be voted for by the electors of the precinct to which the tally sheet is sent; such names in such column to follow the title of his office as printed in the first-mentioned column. In this second column, and following their title, shall be printed the name or title of the proposed constitutional amendment or other question to be voted upon. The names of all the candidates for the same office shall be printed in the column immediately succeeding each other and in exactly the same order and arrangement as they appear upon the official ballot, and blank spaces shall follow each set of offices, in which to write the names of persons voted for whose names are not printed upon the ballot. In this second column, and immediately following the name of the candidate, shall be printed his party name or political designation, as the same appears upon the ballot. Immediately following this second column, in a narrow third column, each line upon which the name of a candidate has been printed and the blank lines shall be numbered numerically, commencing at one and continuing to the end of the sheet. Continuing thence to the extreme right of the sheet, perpendicular lines shall be drawn, at a distance of not more than one half inch apart, parallel with the before-mentioned columns. At the head of each of the columns so formed shall be printed figures, commencing with five in the first, ten in the second, and thus increasing in arithmetical progression to the right of the sheet, where, in another column, shall be printed the figures one, two, three, and so on to the end of the sheet, such figures to correspond with the figures in the third column hereinbefore provided for, leaving room, on the extreme right of the sheet, to write, in figures, the total vote in that precinct for each officer voted for and each proposed constitutional amendment or other question voted upon. Attached to this sheet, or being part of the tally list, shall be printed a form under the general heading first hereinabove provided for. Under this shall be printed a sub-heading, reading "We hereby certify that," and immediately following, on the extreme left of the sheet, shall be printed the names of all of the candidates to be voted for by the electors of the precinct to which the sheet is sent; *provided*, that the names of officers to be voted for in districts less than a county, except members of the Legislature, need not be printed, space being left for writing the names of such officers. The names of candidates shall be printed on this part of the tally sheet in the same order as they appear upon the first part thereof, and upon the ballot; *provided*, that they shall not be preceded by the title of the office for which they are a candidate, nor followed by their party or political designation. Immediately to the right

of and following the name of each candidate shall be printed the word "received," after which shall be left a blank space for writing out in full the number of votes cast at such election for such candidate. Immediately following this blank space shall, in each case, be printed the words "votes for ———," the blank to be filled by printing the title of the office for which the person is a candidate; after which, on the right of the sheet, the line will be completed by printing the words "and that." Where proposed constitutional amendments or other questions have been voted upon, the name or title of such proposed amendment or other question shall be printed upon the extreme left of the sheet and under the names of the candidates for office. The name or title of each of such proposed amendments or other question shall be printed once, followed on the right by the word "Yes," and immediately under it on the next line such names or title shall be repeated, followed on the right by the word "No," after which the line shall be completed as above provided in case of candidates for office. At the end of and completing the sheet shall be printed the following certificate, to be signed by the board of election and the clerks thereof:

"Witness our hands this ——— day of ———, 189—.

_____	} Clerks of Election.	_____	} Inspector. Inspector. Judge. Judge.	} Board of Election."
_____		_____		
_____		_____		
_____		_____		

CHAPTER VIII.

ELECTION BALLOTS.

SECTION 1192. To be amended to read as follows:

Sec. 1192. Certificates of nomination required to be filed with the Secretary of State shall be filed not less than sixty days before the day fixed by law for the election of the persons in nomination, when the nomination is made by a convention; and not less than forty days before the day of election, when the nomination is made by electors, as provided in section eleven hundred and eighty-eight of this Code. Certificates of nomination required to be filed with County Clerks, or with the clerk or secretary of the legislative body of any city or town, shall be filed not less than thirty days before the day of election, when the nomination is made by a convention; and not less than twenty days before the day of election, when the nomination is made by electors. Should a vacancy in the list of nominees of a convention occur, such vacancy may be filled by the convention upon being reconvened, or if the power to fill vacancies has been delegated to a committee, such committee may, upon the occurrence of such vacancy, proceed to fill the same; *pro-*

vided, that such vacancy be filled and certificate of nomination thereof be filed with the proper officer not less than thirty days before the day of election. The chairman and secretary of the convention or of such committee shall thereupon make and file with the proper officer a certificate setting forth the cause of the vacancy, the name of the person nominated, the office for which he was nominated, the name of the person for whom the new nominee is to be substituted, the fact that the committee was authorized to fill vacancies, and such further information and affidavit by the chairman and secretary as is required to be given in an original certificate of nomination. When a certificate to fill any vacancy shall be filed with the Secretary of State, he shall, in certifying the nomination to the various County Clerks, insert the name of the person who has been thus nominated to fill a vacancy in the place of that of the original nominee. Any person whose name has been presented as a candidate, may, at least five days before the making of the publication of the nominations prescribed in this section, cause his name to be withdrawn from nomination, by filing, in the office where his original certificate of nomination is required by this Code to be filed, his request therefor, in writing, signed by him and acknowledged before the County Clerk of the county in which he resides; and no name so withdrawn shall be printed on the ballot. Whenever any certificate of nomination is presented for filing to any officer authorized to file the same, such officer shall forthwith, upon receipt of the same and before filing, examine the same, and if there is any defect, omission, or reason why the same should not be filed, such officer shall then and there forthwith designate, in writing, the defect, omission, or reason why such certificate cannot be filed, and return the said certificate to the person presenting the same, with such written designation of defect, omission, or reason for not filing the same; and after the filing of any certificate of nomination, no officer required by law to transmit any nomination, or to make up or print any ballot, shall fail or omit to transmit such nomination, or omit to print the name of any nominee or candidate named in any certificate of nomination which has been filed; and unless a certificate of nomination is returned as herein required, the officer to whom the same is properly presented shall file the same as soon as he shall receive and examine the same as herein required, and must file it as of the day it is presented.

NOTE.—Amended by permitting nominations to be filed at any time prior to sixty days before an election, the minimum time being increased to sixty days. The minimum time for filing nominations upon petition has been increased to forty days, prior to which no limit has been fixed. The manner of filling vacancies by the convention is made more certain, while committees are given until thirty days before an election to fill vacancies. The chairman and secretary of the committee are required to verify their certificate of nomination.

SECTION 1193. To be amended to read as follows:

Sec. 1193. Thirty days before an election to fill any office, the Secretary of State shall certify to the chairman of the state central committee or other governing body of each political party which has filed nominations in his office, and to each candidate nominated under the provisions of section eleven hundred and eighty-eight of this Code, all nominations filed in his office, in the same manner and form as he is hereinafter required to certify the same to the County Clerks. Twenty-five days before an election he shall also certify all nominations to the County Clerk of each county within which any of the electors may by law vote for candidates for such office, the name of each person nominated for such office, and each proposed constitutional amendment or other proposition to be voted upon, arranged in ballot form, as such form is provided for in section eleven hundred and ninety-seven of this Code.

SECTION 1194. To be amended to read as follows:

Sec. 1194. At least fifteen days before an election to fill any public office, the County Clerk of each county shall cause a sample ballot to be sent to the chairman of the county committee of each organized political party of such county, containing the nominations to office as certified to him by the Secretary of State, and also all those filed with the County Clerk, together with other questions to be voted upon. In all counties where a new registration shall take place preceding the next ensuing election, the County Clerk shall cause the name of each voter, as enrolled, to be addressed upon an envelope, and also the number of the residence of said voter, or the correct post office address of said voter, as the same is written on said register, and which name and address shall be written on the envelope at the time that each voter is duly registered thereon. All of said envelopes shall be securely kept by the said County Clerk, and ten days before election to fill any public office he shall cause to be folded and placed in said envelope, for mailing, a copy of so much of the election proclamation as contains the constitutional amendments or other questions to be voted upon, which copy has been supplied to him by the Secretary of State under the provisions of section eleven hundred and ninety-five hereof, and a sample ballot containing the nominations to office certified to him by the Secretary of State, and also all those filed with the County Clerk, each of which shall be inclosed in said envelope, and cause the same to be mailed in the United States post office as printed matter, for delivery to each of said voters. The mailing of all such envelopes shall commence at least ten days before the time of election to fill any public office, as aforesaid, and continue so that all of said envelopes containing said sample ballots shall have been mailed at least three whole days before the day of election to fill

any public office, as above provided. If a new registration does not take place in any county preceding the next ensuing election, the County Clerk shall cause envelopes to be addressed to each voter, together with the number of the residence of said voter, or correct post office address, as the same appears upon the register corrected at that time, as the law provides, and cause to be inclosed therein the copy of the proposed constitutional amendments or other question, and sample ballot, as aforesaid, and cause the same to be mailed in the manner and within the time as above provided. The clerk or the secretary of the legislative body of any incorporated city or town, with whom the names of any candidates have been filed, shall mail, in the United States post office, envelopes addressed to each voter, together with the sample ballots inclosed therein, the list of nominations filed with him in the same manner as the lists of nominations mailed by the County Clerk, as provided in this section.

SECTION 1195. To be amended to read as follows:

Sec. 1195. Whenever a proposed constitutional amendment or other question is to be submitted to the people of the State for the popular vote, the Superintendent of State Printing shall, at the same time that he prints the Governor's proclamation provided for in section ten hundred and fifty-four, print of that part of the proclamation relating to such amendments or other questions, as many copies as twice the total number of votes cast at the general election next preceding. Such copies of such proposed amendments or other question shall be printed from the same composition of type as was used in printing that part of the election proclamation, upon plain white paper of light weight and convenient size for mailing. He shall, at least thirty days before the succeeding general election at which such amendments or other questions are to be voted upon, deliver such copies to the Secretary of State, who shall immediately distribute the same to the various County Clerks for distribution as provided for in section eleven hundred and ninety-four. The Secretary of State, in making such distribution, shall send to each County Clerk a number not less than one and one half times as many copies as there were votes cast in said county at the last general election held therein.

SECTION 1197. To be amended to read as follows:

Sec. 1197. All ballots printed by County Clerks, other than the separate ballots containing the names of candidates for city and county offices, printed by the County Clerks of consolidated cities and counties, shall be headed "general ticket"; and all ballots printed by County Clerks of consolidated cities and counties, containing the names of candidates for city and county offices, and also all tickets printed by the

clerk or secretary of a legislative body of any incorporated city or town, shall be headed "municipal ticket." Under the heading of all general tickets the respective number of the congressional, senatorial, and assembly districts in which each ticket is to be voted shall be printed. At the head of the column or columns in which the names of candidates for presidential electors are printed shall be printed the following direction to voters: "To vote for electors of one party, mark a cross in the square at the right of the party name." Immediately following this shall be printed the title of their office and a direction to mark once, as "Electors of President and Vice-President ——— mark once." At the head of the columns in which the names of candidates for other offices are printed shall be printed the following direction to voters: "To vote for a person, stamp cross (X) in square at right of name of political party or designation following his name." Each group of names of candidates for any one office, except presidential elector, provision for which has hereinbefore been made, shall be immediately preceded by the title of the office at the extreme left of the column, followed on the extreme right of the column by a direction to the voter specifying the number of persons to be voted for for that office, thus "Governor ——— vote for one."

Where proposed amendments to the constitution or other questions are to be voted upon, the statement and description thereof shall be printed upon the ballot in manner and form as provided for in section ten hundred and fifty-four of this Code, opposite which shall be printed the words "Yes" and "No" on separate lines. Such statement shall be immediately preceded by the following direction to voters: "To vote on the following questions, stamp a cross (X) in the square at the right of 'Yes' or 'No' in each case." All municipal tickets containing the names of candidates for ward or district offices, in addition to such direction to voters, shall have the number of the ward or district in which such ticket is to be voted printed thereon. All municipal tickets shall be printed upon paper of a different tint from that of the general ticket. On each ballot a perforated line shall extend from top to bottom, one half inch from the right-hand side of such ballot, and upon the half inch strip thus formed there shall be no printing, except the number of the ballot, which shall be upon the back of such strip, in such position that it shall appear on the outside when the ballot is folded. The number on each ballot shall be the same as that on the corresponding stub, and the ballots and stubs shall be numbered consecutively in each county. All ballots shall be eighteen inches in length and four and one half inches in width, and as many times such width as shall be necessary to contain the names of all candidates nominated. Where the names of candidates are printed in separate columns, such columns shall be separated by heavy rules; and on all ballots the names of can-

didates shall each be separated by a rule extending to the extreme right of the column, and each group of names of candidates for any office shall be separated, by a heavy ruled line extending to the extreme right of the column, from the names of the candidates for the next and succeeding office printed upon the ticket.

All ballots shall be printed in plain roman type, and shall contain the name of every candidate whose nomination for any office specified in the ballot has been certified to and filed according to the provisions of this Code, and no other name; and there shall be added to all the names of candidates for each office, where such officer is to be elected from a section or district comprising more than one county, the name of the county from which he was nominated, followed by their party or political designation or designations, as far to the right of the column as possible, leaving room for the square or space hereinafter provided for, as

W. M. CUTTER, of Yuba...Independent. Silver. Republican.
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The names of the candidates for each office shall be arranged, under the designation of the office, in alphabetical order, according to surname, except that the names of candidates for the office of elector for President and Vice-President shall be arranged in groups as presented in the several certificates of nomination, and there shall be printed at the head of each group of electors so nominated the name of the candidates of the party they represent for President and Vice-President, followed by the political principle or party represented by said electors, after which, on the extreme right of the column, shall be a space or square, in one of which the voter must stamp a cross (X) signifying his intention to vote for the group of electors immediately following, as

McKinley and Hobart.....Republican.

in great primer title type or the like. There shall be left at the end of the list of candidates for each office as many blank spaces as there are persons to be elected to such office, in which the voter may insert the name of any person not printed upon the ballot, for whom he desires to vote as candidate for such office; and the names and blank spaces on the whole ticket shall be consecutively numbered, the figures being placed on the left-hand side of such names and blank spaces. There shall be a margin on the right-hand side of the names of all candidates, except presidential electors, provision for which is hereinabove made, at least one half an inch wide, along the left-hand edge of which margin a line shall be drawn forming squares, so that the voter may clearly

indicate in the way to be hereinafter pointed out, the candidate or candidates for whom he wishes to cast his ballot.

SECTION 1200. To be amended to read as follows:

Sec. 1200. Whenever it shall appear by affidavit that an error or omission has occurred in the publication of the name or description of the candidates nominated for office, or in the printing of the ballots, the Superior Court of the county, or the judge thereof, shall, upon application by any elector, by order, require the County Clerk or Secretary of State to correct such error, or to show cause why such error should not be corrected.

CHAPTER IX.

VOTING AND CHALLENGES.

SECTION 1239. To be amended to read as follows:

Sec. 1239. The board of election, in determining the place of residence of any person, must be governed by the following rules, as far as they are applicable:

1. That place must be considered and held to be the residence of a person, in which his habitation is fixed, and to which, whenever he is absent, he has the intention of returning;

2. A person must not be held to have gained or lost residence by reason of his presence or absence from a place while employed in the service of the United States, or of this State, nor while engaged in navigation, nor while a student at any institution of learning, nor while kept in an almshouse, asylum, or prison;

3. A person must not be considered to have lost his residence who leaves his home to go into another State, or precinct in this State, for temporary purposes merely, with the intention of returning;

4. A person must not be considered to have gained a residence in any precinct into which he comes for temporary purposes merely, without the intention of making such precinct his home;

5. If a person remove to another State with the intention of making it his residence, he loses his residence in this State;

6. If a person remove to another State with the intention of remaining there for an indefinite time, and as a place of present residence, he loses his residence in this State, notwithstanding he entertains an intention of returning at some future period;

7. The place where a man's family resides must be held to be his residence; but if it be a place of temporary establishment for his family, or for transient objects, it is otherwise;

8. If a man have a family fixed in one place, and he does business in

another, the former must be considered his place of residence; but any man having a family, and who has taken up his abode with the intention of remaining, and whose family does not so reside with him, must be regarded as a resident where he has so taken up his abode;

9. The mere intention to acquire a new residence, without the fact of removal, avails nothing; neither does the fact of removal, without the intention.

NOTE.—The amendment consists in striking out Subdivision 3, which was held unconstitutional in *Russell vs. McDowell*, 83 Cal. 80.

CHAPTER X.

CANVASSING AND RETURNING THE VOTES.

SECTION 1253. To be amended to read as follows:

Sec. 1253. In the City and County of San Francisco, at the closing of the polls, the inspector must administer to the additional members of the board of canvassers the oath prescribed in section eleven hundred and forty-eight, and likewise to two clerks appointed by such additional members.

SECTION 1254. To be amended to read as follows:

Sec. 1254. The canvass must be commenced by taking out of the box the ballots, unopened (except so far as to ascertain whether each ballot is single), and counting the same to ascertain whether the number of ballots corresponds with the number of names on the list of voters kept by the clerks. If two or more separate ballots are found so folded together as to present the appearance of a single ballot, they must be laid aside until the count of the ballots is completed; then, if upon comparison of the count with the number of names of electors on the lists which have been kept by the clerks, it appears that the two ballots thus folded together were cast by one elector, they must be rejected. The inspector must then replace the ballots in the box, and then proceed to take out of the box the ballots, unopened, one at a time, numbering them on the backs in numerical order, commencing with number one, and writing with ink the initials of his own name upon the back of each ballot as taken out. He shall pass each ballot, as soon as thus indorsed, to the additional inspector, who must, in like manner, write thereon the initials of his own name, so that each ballot can be subsequently identified by either or both such inspectors.

SECTION 1255. To be amended to read as follows:

Sec. 1255. The ballots must be immediately replaced in the box, and if the ballots in the box exceed in number the names on the lists, one of the judges must publicly, and without looking in the box, draw out

therefrom singly, and destroy, unopened, a number of ballots equal to such excess; and the board of election must make a record, upon the poll list, of the number of ballots so drawn and destroyed, and the numbers appearing on the backs of the ballots so drawn must likewise be recorded.

SECTION 1257. To be amended to read as follows:

Sec. 1257. After the lists are thus signed, the board must proceed to open the ballots, and count and ascertain the number of votes cast for each person voted for. At all elections where a general ticket and a municipal ticket are used, the canvass of the general ticket shall be completed before the canvass of the municipal ticket is commenced. All the ballots must be taken out of the ballot-box, one at a time, and opened by one of the members of the board, and the name of each person marked in the ballots as voted for shall be distinctly read in connection with the office for which he is a candidate. As the ballots are counted and an official record, as hereinbefore mentioned, made, they must be strung upon a string by one of the judges. All ballots rejected for illegality must have the cause of such rejection indorsed upon the ballot, and such indorsement must be signed by a majority of the election board. All such rejected ballots shall be immediately strung upon a string by one of the judges.

NOTE.—The amendment goes only to form and not to substance.

SECTION 1258. To be amended to read as follows:

Sec. 1258. Each clerk must keep the number of votes cast for each candidate or proposition to be voted on by tallies, as they are read aloud. Such tallies must be made with pen and ink, and immediately upon the completion of the tallies, which must follow the name of the candidate or statement of the proposition on the tally sheet, the clerks who respectively complete the same must draw one heavy line in ink from the last tally mark to the end of the line in which such tallies terminate, and also write at the end of each line the initials of the person making the last tally in such line.

SECTION 1259. To be amended to read as follows:

Sec. 1259. The ballots when strung on a string must not thereafter be examined by any person, but must, as soon as all are counted, be carefully sealed in a strong envelope, each member of the board writing his name across the seal.

SECTION 1260. To be amended to read as follows:

Sec. 1260. As soon as all the votes are counted and the ballots sealed up, the tally sheets must be completed by writing in ink, at full length, opposite the name of each candidate as it appears on the second part of

said sheet, the number of votes cast for such candidate, and such list must be signed by the members of the board and attested by the clerks, substantially in the form required by section eleven hundred and seventy-four hereof.

SECTION 1261. To be amended to read as follows:

Sec. 1261. The board must, before it adjourns, inclose in a cover, and seal up and direct to the County Clerk, the copy of the register upon which one of the judges marked the word "voted" as the ballots were received, all certificates of registration received by it, one of the lists of the persons challenged, one copy of the list of voters, and one of the tally lists and list attached thereto. The board shall also, at the completion of their other duties, post, in a conspicuous place at the entrance to the polls, a statement containing the name of each candidate and the name or title of each question voted on, together with the number of votes cast for such candidate or for or against such question. Such statement shall remain so posted for ten days; and to tear down, destroy, or deface the same within that time shall constitute a misdemeanor, and be punishable as such.

CHAPTER XI.

CANVASS OF RETURNS—DECLARATION OF RESULT—COMMISSIONS AND CERTIFICATES OF ELECTION.

SECTION 1281. To be amended to read as follows:

Sec. 1281. The canvass must be made in public, and by opening the returns and estimating the vote of such county or township for each person voted for, and for and against each proposed constitutional amendment or other question voted upon at such election, and declaring the result thereof.

SECTION 1282. To be amended to read as follows:

Sec. 1282. The clerk of the board must, as soon as the result is declared, enter on the records of such board a statement of such result, which statement must show:

1. The whole number of votes cast in the county;
2. The names of the persons voted for, as they appeared upon the ballot, and the proposed constitutional amendments and other questions voted upon;
3. The office to fill which each person was voted for;
4. The number of votes given at each precinct to each of such persons, and for and against each of such proposed constitutional amendments or other questions voted upon;

5. The number of votes given in the county to each of such persons, and for and against each of such proposed constitutional amendments or other questions voted upon.

As soon as said statement is entered upon the records of the Board of Supervisors, the clerk must make a certified abstract of said statement, seal up such abstract, indorse it "election returns," and without delay transmit the same to the Secretary of State.

SECTION 1283. To be amended to read as follows:

Sec. 1283. The board must declare elected the person having the highest number of votes given for each office to be filled by the votes of a single county or subdivision thereof, except to the person elected judge of the Superior Court.

SECTION 1284. To be amended to read as follows:

Sec. 1284. The County Clerk must immediately make out and deliver to such person (except to the person elected judge of the Superior Court) a certificate of election, signed by him, and authenticated with the seal of the Superior Court.

SECTION 1285. To be amended to read as follows:

Sec. 1285. When there are officers, other than those to be filled by the electors of the entire State, Representatives in Congress, members of the State Board of Equalization, and Railroad Commissioners, voted for, who are chosen by the electors of a district composed of two or more counties, each of the County Clerks of the counties composing such district, immediately after making out the statement specified in section twelve hundred and eighty-two, must make a certified abstract of so much thereof as relates to the election of such officer.

SECTION 1287. To be amended to read as follows:

Sec. 1287. The County Clerk to whom the election returns of a district are made, must, as soon as the returns from all the counties in the district have been received, open in public such returns, and from them and the statement of the vote for such officers in his own county:

1. Make a statement of the vote of the district for such officers, and file the same, together with the returns, in his office;
2. Immediately transmit a certified copy of such statement to the Secretary of State;
3. Make out and deliver, or transmit by mail, to the persons elected a certificate of election (unless it is by law otherwise provided).

SECTION 1288. To be amended to read as follows:

Sec. 1288. Whenever in any case the name of any candidate for an office appears more than once upon the ballot, all votes cast for him

shall be counted for him by the various precinct election boards, upon the tally sheet, in manner and form as his name appears upon the ballot and tally sheet, and be so returned by the board of election. When the Board of Supervisors of the county wherein the election was held meet to canvass the returns as provided for in section twelve hundred and seventy-eight, in the case of all officers voted for by the electors of that county only, or a minor political division thereof, except judges of the Superior Court, they shall add together all votes cast for any such candidate for any one office, no matter what political party or political principle, or number of such parties or principles, he may represent. In cases provided for in section twelve hundred and eighty-five, the various Boards of Supervisors canvassing the votes shall certify the same to the County Clerk of the proper county, as provided for in section twelve hundred and eighty-six, and such County Clerk shall so add together all votes cast for such officer as aforesaid. In the case of officers to be voted for by the entire State, and Representative in Congress, member of State Board of Equalization, Railroad Commissioner, and judge of the Superior Court, the various Boards of Supervisors shall certify the vote to the Secretary of State, as provided for in section twelve hundred and eighty-two, and the Secretary of State, in estimating and certifying the returns, shall add together all votes cast for any such candidate for any one office, no matter what political party or principle, or number thereof, he may represent. In all cases herein provided for, identity of name shall be considered identity of person, and the vote for any candidate, after having been so added together, shall constitute his entire or total vote, and shall determine the question of his election.

SECTION 1289. To be amended to read as follows:

Sec. 1289. Whenever the name of any candidate appears more than once upon the ballot for any one office, followed by different political or party designations, and a voter stamps a cross in all of the squares following such name, the intention of the voter shall be respected and the vote counted as one for such candidate.

NOTE.—Sections 1288 and 1289, as they originally read, are, since the amendment of Section 1282, no longer required. The amended sections are designed to meet the contingencies which so forcibly presented themselves during the presidential election of 1896.

SECTION 1290. To be amended to read as follows:

Sec. 1290. On the fortieth day after the election, or as soon as the returns have been received from all the counties of the State, if received within that time, the Secretary of State must compare and estimate the vote for offices, proposed constitutional amendments or other questions, to be voted upon by the electors of the entire State, and make out

and file in his office a statement thereof, and transmit a copy of such statement to the Governor, and certify to said official, except as otherwise herein provided for, the name of each person who received the highest number of votes for each office; *provided*, that when an election has been held for member of Congress, member of Board of Equalization, Railroad Commissioner, or judge of the Superior Court, the Secretary of State must, as soon as all the returns have been received from the county or district in which such officers are voted for, compare and estimate the vote, and make out and file in his office a statement thereof, and transmit a copy of such statement to the Governor, and certify to such officer the name of the person who received the highest number of votes for each office.

SECTION 1291. To be amended to read as follows:

Sec. 1291. Upon receipt of such copy, the Governor must issue commissions to the persons who from it appear to have received the highest number of votes for offices, except that of Governor or Lieutenant-Governor, or electors of President or Vice-President, to be filled at such election, and declare the result of the election upon proposed constitutional amendments or other questions voted upon, and file such declaration with the Secretary of State.

CHAPTER XII.

ELECTION FOR ELECTORS OF PRESIDENT AND VICE-PRESIDENT.

SECTIONS 1308 and 1309. To be repealed.

NOTE.—The purpose of these sections is accomplished by Section 1282.

SECTION 1313. To be repealed.

NOTE.—The purpose of this section is served by Section 1290.

SECTION 1314. To be amended to read as follows:

Sec. 1314. The Governor must, upon the receipt of the statement and certificate required by section twelve hundred and ninety of this Code, transmit to each of the persons elected as an elector of President and Vice-President, a certificate of election, and on or before the day of their meeting deliver to the electors a list of the names of electors, and must do all other things required of him in the premises by any act of Congress in force at the time.

SECTIONS 1344 and 1345. To be repealed.

NOTE.—The purpose of these sections is served by Section 1282, as amended.

CHAPTER XIII.

ARTICLE II.

ELECTION FOR REPRESENTATIVES.

SECTION 1346. To be repealed.

NOTE.—It is a repetition of Section 1290, as amended.

SECTION 1347. To be amended to read as follows:

Sec. 1347. The Governor must, upon the receipt of the statement and certificate required by section twelve hundred and ninety hereof, transmit to each of the persons elected as Representative to Congress, a certificate of his election, sealed with the great seal and attested by the Secretary of State.

Chapter XIV of Part III, Title II, containing Sections 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, and 1365, are to be superseded by a new primary elections law, which the Commission now has in course of preparation. Several systems of primary elections are to be proposed to the Legislature at its approaching session, and it is the design of this Commission to withhold its recommendation until it has examined such measures.

CHAPTER II.

STATE NORMAL SCHOOLS.

SECTION 1487. To be amended to read as follows:

Sec. 1487. The state normal schools have for their objects the education of teachers for the public schools of this State.

SECTION 1488. To be amended to read as follows:

Sec. 1488. The state normal schools shall be under the management and control of boards of trustees, constituted as provided in section three hundred and fifty-four of this Code.

SECTION 1489. To be amended to read as follows:

Sec. 1489. The powers and duties of each board of trustees are as follows:

1. To elect a secretary, who shall receive such salary, not to exceed one hundred and fifty dollars per annum, as may be allowed by the board;

2. To prescribe rules for their government and the government of the school;

3. To prescribe rules for the report of officers and teachers of the school, and for visiting other schools and institutions;

4. To provide for the purchase of school apparatus, furniture, stationery, and text-books for the use of pupils;

5. To establish and maintain model and training schools of the kindergarten, primary, and grammar grades, and require the students of the normal schools to teach and instruct classes therein;

6. To elect necessary teachers, upon their nomination by the president, fix their salaries, and prescribe their duties; *provided*, that after the principal teachers have served successfully and acceptably for a term of two years, their appointment thereafter shall be made for a term of four years at least, unless removed for cause as hereinafter specified;

7. To control and expend all moneys appropriated for the support and maintenance of the school, and all moneys received for tuition or donations;

8. To cause a record of all their proceedings to be kept, which shall be open to public inspection at the school;

9. To keep, open to public inspection, an account of receipts and expenditures;

10. To annually report to the Governor a statement of their transactions, and of all matters pertaining to the school;

11. To transmit with such report a copy of the president's annual report;

12. To revoke any diploma by them granted, on receiving satisfactory evidence that the holder thereof is addicted to drunkenness, is guilty of gross immorality, or is reputedly dishonest in his dealings; *provided*, that such person shall have at least thirty days' previous notice of such contemplated action, and shall, if he asks it, be heard in his own defense.

SECTION 1490. To be amended to read as follows:

Sec. 1490. Each board of trustees must hold two regular meetings in each year, and may hold special meetings at the call of the secretary, when directed by the chairman.

SECTION 1491. To be amended to read as follows:

Sec. 1491. The time and place of regular meetings must be fixed by the by-laws of the board. The secretary must give written notice of the time and place of special meetings to each member of the board. Each member shall be allowed his expenses in attending the meetings of the board, the bills to be audited the same as any bills for the maintenance of the school.

SECTION 1492. To be amended to read as follows:

Sec. 1492. There shall be a joint board of normal school trustees, to be composed of the members of the local boards of the several state normal schools. This board shall meet on the second Friday of April of each year, alternately at the different state normal schools. The first meeting after the passage of this act shall be at Los Angeles; the second meeting at Chico, and the third at San José. Thereafter the places of meeting shall be in the order named above. A special meeting may be called by the Governor for the transaction of any urgent business affecting the welfare of any or all of the state normal schools. It shall be the duty of this joint board:

1. To fill a vacancy in the presidency of any of the state normal schools, and to fix the salaries of the presidents of the several normal schools;

2. To sit as a board of arbitration in matters concerning the management of each state normal school that may need adjustment;

3. To dismiss a teacher from either of the state normal schools for good and sufficient cause after having been elected as designated under section fourteen hundred and eighty-nine of this Code;

4. To prescribe a series of text-books for use in the state normal schools;

5. To prescribe a uniform course of study, and time and standard for graduation from the state normal schools;

6. To prescribe a uniform standard of admission for students entering the normal schools;

7. The joint board shall also have the power to pass any general regulations that may be applied to all of the state normal schools, thus affecting their well-being;

8. Members in attending the meetings of the joint board shall receive mileage while in actual attendance upon the meeting, the same to be paid out of any appropriation made by the Legislature for that purpose;

9. The Superintendent of Public Instruction shall be the secretary of the joint board. The secretary shall keep a full record of all proceedings of the joint meetings of the trustees, and shall notify the secretary of each board of trustees of any changes made in the course of study or the text-books to be adopted.

SECTION 1497. To be amended to read as follows:

Sec. 1497. Every person making application for admission as a pupil to the normal school must, at the time of making such application, file with the president of the school a declaration that he enters the school to fit himself for teaching, and that it is his intention to engage in teaching in the public schools of this State, or in the State or Territory where the applicant resides.

SECTION 1501. To be amended to read as follows:

Sec. 1501. The president of each state normal school must make a detailed annual report to the board of trustees, with a catalogue of the pupils, and such other particulars as the board may require or he may think useful.

SECTION 1503. To be amended to read as follows:

Sec. 1503. First—The board of trustees of each state normal school, upon the recommendation of the faculty, may issue to those pupils who worthily complete the full course of study and training prescribed, diplomas of graduation, either from the normal department, the kindergarten department, or both;

Second—Said diploma from the normal department shall entitle the holder thereof to a grammar grade certificate from any City, City and County, or County Board of Education in the State. One from the kindergarten department shall entitle the holder to teach in any kindergarten in the State;

Third—Whenever any City, City and County, or County Board of Education shall present to the State Board of Education a recommendation showing that the holder of a normal school diploma from the normal department has had a successful experience of two years in the public schools of this State, subsequent to the granting of such diploma, the State Board of Education shall grant to the holder thereof a document signed by the president and secretary of the state board, showing such fact. The said diploma accompanied by said document of the state board attached thereto, shall become a permanent certificate of qualification to teach in any primary or grammar school of this State, valid until such time as said diploma may be revoked, as provided in subdivision thirteen of section fourteen hundred and eighty-nine of this Code;

Fourth—Upon presentation of the diploma and document referred to in section fifteen hundred and three, subdivision third thereof, to any City, City and County, or County Superintendent of Schools, said superintendent shall record the name of the holder thereof in a book provided for that purpose in his office, and the holder shall henceforth be absolved from the requirements of subdivision first of section sixteen hundred and ninety-six of this Code:

Fifth—Said diploma of graduation from any normal school in this State, when accompanied by a certificate granted by the faculty of the state university, showing that the holder thereof, subsequent to receiving said diploma, has successfully completed the prescribed course in the pedagogical department of the state university, shall entitle the holder to a high school certificate authorizing the holder to teach in any primary or grammar school, and in any high school in this State,

except in those in which the holder would be required to teach languages other than English.

SECTION 1504. To be repealed.

SECTION 1505. To be amended to read as follows:

Sec. 1505. The Superintendent of Public Instruction must visit each school from time to time, inquire into its condition and management, enforce the rules and regulations made by the board, require such report as he deem proper from the teachers of the school, and exercise a general supervision over the same.

SECTION 1506. To be repealed.

SECTION 1507. To be amended to read as follows:

Sec. 1507. Each order upon the Controller of State by the board of trustees of the state normal school must be signed by the chairman of the local board and countersigned by the secretary. Upon presentation of the order aforesaid, the Controller of State must draw his warrant upon the State Treasurer in favor of the board of trustees, for any moneys, or any part thereof, appropriated and set apart for the support of the normal school, and the State Treasurer must pay such warrants upon presentation.

CHAPTER III.

ARTICLE I.

STATE BOARD OF EDUCATION.

SECTION 1517. To be amended to read as follows:

Sec. 1517. The State Board of Education consists of the Governor, the Superintendent of Public Instruction, the Principals of the State Normal Schools, the President of the University of California, and the Professor of Pedagogy therein.

NOTE.—Changed to conform to Article IX, Constitution, as amended in 1894.

SECTION 1520. To be amended to read as follows:

Sec. 1520. The board shall meet at the call of secretary, and at least twice in each year.

NOTE.—Changed to improve expression.

SECTION 1521. To be amended to read as follows:

Sec. 1521. The powers and duties of the board are as follows:

First—To adopt rules and regulations, not inconsistent with the laws of this State, for its own government, and for the government of the public schools and district school libraries.

Second—To grant life diplomas of two grades, valid throughout the State, as follows:

1. High School: authorizing the holder to teach in any primary, grammar, or high school in the State;

2. Grammar School: authorizing the holder to teach in any primary or grammar school in the State.

Third—High school life diplomas may be issued only to such persons as have held for three years, and who still hold, a valid high school certificate, and who shall furnish satisfactory evidence of having had a successful experience in teaching of not less than eighty months, twenty-four of which must have been in the University of California, a California state normal school, or a high school established under the laws of California.

Fourth—Grammar school life diplomas may be issued only to such persons as have held for three years, and who still hold, a valid grammar school certificate, or a certificate or diploma of California which is the equivalent of a grammar school certificate, and who shall furnish satisfactory evidence of having had a successful experience in teaching of not less than eighty (80) months, twenty-four of which must have been in the public schools of California. Every application for a life diploma must be accompanied to the State Board of Education by a certified copy of a resolution adopted by at least a four-fifths vote of all the members composing a City or County Board of Education, recommending that the diploma be granted, and also by an affidavit of the applicant, specifically setting forth the places in which, and the dates between which, said applicant has taught. The application must also be accompanied by a fee of two dollars, for the purpose of defraying the expense of issuing the diploma.

Fifth—To revoke or suspend, for immoral or unprofessional conduct, or for evident unfitness for teaching, diplomas, or other certificates of qualification to teach, heretofore issued, or that may hereafter be issued; and to adopt such rules for the revocation of diplomas as they may deem expedient or necessary.

Sixth—To have done by the Superintendent of State Printing, or other officer having the management of the state printing, any printing required by it; *provided*, that all orders for printing shall first be approved by the State Board of Examiners.

Seventh—To adopt and use, in authentication of its acts, an official seal.

Eighth—To keep a record of its proceedings.

NOTE.—The amendment consists principally in dispensing with educational diplomas, in the second subdivision, and in dropping subdivision ninth, which provided for an educational journal. This was done at the unanimous request of the State Board of Education.

SECTION 1525. A new section to be added to read as follows:

No discrimination against women teachers.

Sec. 1525. Women employed as teachers in the public schools of this State shall in all cases receive the same compensation as is allowed men teachers for like services when holding the same grade certificates.

NOTE.—This creates a new section for the purpose of embodying the substance of the statute on this subject into the Code.

ARTICLE II.

SUPERINTENDENT OF PUBLIC INSTRUCTION.

SECTION 1532. To be amended to read as follows:

Sec. 1532. It is the duty of the Superintendent of Public Instruction:

First—To superintend the schools of this State.

Second—To report to the Governor, on or before the fifteenth day of September preceding each regular session of the Legislature, a statement of the condition of the state normal schools and other educational institutions supported by the State, and of the public schools.

Third—To accompany his report with tabular statements showing the number of census children in the State; the number attending public schools, and the average attendance; the number attending private schools; the amount of state school fund apportioned, and the sources from which derived; the amount raised by county and district taxes, or from other sources of revenue, for school purposes; and the amount expended for salaries of teachers, for building school-houses, for district school libraries, and for incidental expenses.

Fourth—To apportion the state school fund; and to furnish an abstract of such apportionment to the State Controller, the State Board of Examiners, and to the County Auditors, County Treasurers, and County Superintendents of Schools of the several counties of the State.

Fifth—To draw his order on the Controller in favor of each County Treasurer for school moneys apportioned to the county.

Sixth—To prepare, have printed, and furnish all officers charged with the administration of the laws relating to the public schools, and to teachers, such blank forms and books as may be necessary to the discharge of their duties, including blank teachers' certificates to be used by County Boards of Education.

Seventh—To have the laws relating to the public schools printed in pamphlet form, and to supply school officers and school libraries with one copy each.

Eighth—To visit the several orphan asylums to which State appropriations are made, and examine into the course of instruction therein.

Ninth—To visit the schools in the different counties, and inquire into

their condition; and the actual traveling expenses thus incurred (*provided*, that they do not exceed fifteen hundred dollars per annum) shall be allowed, audited, and paid out of the general fund in the same manner as other claims are audited and paid.

Tenth—To authenticate with his official seal all drafts or orders drawn by him, and all papers and writings issued from his office.

Eleventh—To have bound, at the state bindery, all valuable school reports, journals, and documents in his office, or hereafter received by him.

Twelfth—To report to the Controller, on or before the tenth day of July of each year, the total number of children in the State between the ages of five and seventeen years, as shown by the latest reports of the County Superintendents on file in his office.

Thirteenth—To deliver over, at the expiration of his term of office, on demand, to his successor, all property, books, documents, maps, records, reports, and other papers belonging to his office, or which may have been received by him for the use of his office.

NOTE.—The amendment is in the third and fourth subdivisions, "census children" being substituted for "school children."

ARTICLE III.

SCHOOL SUPERINTENDENTS.

SECTION 1543. To be amended to read as follows:

Sec. 1543. It is the duty of the County Superintendent of Schools of each county:

First—To superintend the schools of his county.

Second—1. To apportion the school moneys to each school district, as provided in section eighteen hundred and fifty-eight of this Code, at least four times a year. For this purpose he may require of the County Auditor a report of the amount of all school moneys on hand to the credit of the several school funds of the county not already apportioned; and it is hereby made the duty of the Auditor to furnish such report when so required; and whenever an excess of money has accumulated to the credit of a school district by reason of a large census roll and a small attendance, beyond a reasonable amount necessary to maintain a school for eight months in such district for the year, the Superintendent of Schools shall place said excess of money to the credit of the unapportioned school funds of the county, and shall apportion the same as other school funds are apportioned.

2. If in any school district there has been an average daily attendance of only five, or a number of pupils less than five, during the whole school year, the County Superintendent of Schools shall at once suspend the

district, and report the fact to the Board of Supervisors at their next meeting. The Board of Supervisors, upon receiving such report from the Superintendent, shall declare the district lapsed, and shall attach the territory thereof to one or more of the adjoining school districts in such manner as may be by them deemed most convenient for the residents of said lapsed district.

3. When any district has been declared lapsed, the Board of Supervisors shall sell or otherwise dispose of the property thereto belonging, and shall place the proceeds of such sale to the credit of the district. Thereupon, the County Superintendent of Schools shall determine all outstanding indebtedness of said lapsed district, and shall draw his requisition upon the County Auditor in payment thereof. Any balance of moneys remaining to the credit of said lapsed district shall be transferred by the Superintendent to the unapportioned school funds of the county, and shall be apportioned as other school funds are apportioned. Should there not be sufficient funds to the credit of the lapsed district to liquidate all the outstanding indebtedness thereof, the Superintendent shall draw his requisition upon the County Auditor pro rata for the several claims.

Third—On the order of the Board of School Trustees, or Board of Education of any city or town having a Board of Education, to draw his requisition upon the County Auditor for all necessary expenses against the school fund of any district. The requisitions must be drawn in the order in which the orders therefor are filed in his office. Each requisition must specify the purpose for which it is drawn, but no requisition shall be drawn unless the money is in the fund to pay it, and no requisition shall be drawn upon the order of the Board of School Trustees or Board of Education against the funds of any district except the teachers' salaries, unless such order is accompanied by an itemized bill showing the separate items, and the price of each, in payment for which the order is drawn; nor shall any requisition for teachers' salaries be drawn unless the order shall state the monthly salary of teacher, and name the months for which such salary is due. Upon the receipt of such requisition the Auditor shall draw his warrant upon the County Treasurer in favor of the parties for the amount stated in such requisition.

Fourth—To keep, open to the inspection of the public, a register of requisitions, showing the fund upon which the requisitions have been drawn, the number thereof, in whose favor, and for what purpose they were drawn, and also a receipt from the person to whom the requisition was delivered.

Fifth—To visit and examine each school in his county at least once in each year. For every school not so visited the Board of Supervisors must, on proof thereof, deduct ten dollars from his salary.

Sixth—To preside over teachers' institutes held in his county, and to

secure the attendance thereat of lecturers competent to instruct in the art of teaching, and to report to the County Board of Education the names of all teachers in the county who fail to attend regularly the sessions of the institute; to enforce the course of study, the use of textbooks, and the rules and regulations for the examination of teachers prescribed by the proper authority.

Seventh—He shall have power to issue, if he deem it proper to do so, temporary certificates, valid for a period not to exceed six months, upon credentials upon which the county boards are empowered to grant certificates without examination, as specified in section seventeen hundred and seventy-five; *provided*, that no person shall be entitled to receive such temporary certificate more than once in the same county.

Eighth—To distribute all laws, reports, circulars, instructions, and blanks which he may receive for the use of school officers.

Ninth—To keep in his office the reports of the Superintendent of Public Instruction.

Tenth—To keep a record of his official acts, and of all the proceedings of the County Board of Education, including a record of the standing, in each study, of all applicants examined, which shall be open to the inspection of any applicant or his authorized agent.

Eleventh—Except in incorporated cities having Boards of Education, to pass upon and approve or reject, all plans for school-houses. To enable him to do so, all Boards of Trustees, before adopting any plans for school buildings, must submit the same to the County Superintendent of Schools for his approval.

Twelfth—To appoint trustees to fill all vacancies, to hold until the first day of July succeeding such appointment; when new districts are organized, to appoint trustees for the same, who shall hold office until the first day of July next succeeding their appointment. In case of the failure of the trustees to employ a janitor, as provided in section sixteen hundred and seventeen, subdivision seventh, of this Code, he shall appoint a janitor, who shall be paid out of the school fund of the district. Should the Board of School Trustees of any district fail or refuse to issue an order for the compensation of such service, the County Superintendent of Schools is hereby authorized to issue, without such order, his requisition upon the county school fund apportioned to such district.

Thirteenth—To make reports, when directed by the Superintendent of Public Instruction, showing such matters relating to the public schools in his county as may be required of him.

Fourteenth—To preserve carefully all reports of school officers and teachers, and, at the close of his official term, deliver to his successor all records, books, documents, and papers belonging to the office, taking a receipt for the same, which will be filed in the office of the County Clerk.

Fifteenth—The County Superintendent of Schools shall, unless otherwise provided by law, in the month of May, fix the grade of each school for the succeeding school year, and a record thereof shall be made in a book to be kept by the County Superintendent of Schools in his office for this purpose. And no teacher holding a certificate below the grade of said school shall be employed to teach the same.

NOTE.—The amendment of the first, eleventh, and twelfth subdivisions consists only in an effort to improve their construction. Subdivision seven is amended to fix definitely the life of a temporary certificate. The amendment of subdivision fifteen was made so that the grade of a school might be known before the beginning of the school year, and be a guide to the proper selection of a teacher.

SECTION 1545. To be amended to read as follows:

Sec. 1545. If the trustees of any school district refuse or neglect to engage a teacher for a period of six months, it shall be the duty of the County Superintendent of Schools to appoint a teacher, fix his salary, and draw his requisition upon the County Auditor, who shall draw his warrant upon the fund of such district for the expenses incurred.

NOTE.—Changed in the interest of the children. By this change the County Superintendent of Schools has power to force or compel a six months' school, provided the district has funds.

SECTION 1549. To be amended to read as follows:

Sec. 1549. Each County Superintendent of Schools may appoint a deputy, but no salary payable out of the school fund must be allowed such deputy.

NOTE.—Changed to improve the expression.

SECTION 1551. To be amended to read as follows:

Sec. 1551. Every County Superintendent of Schools, and Superintendent of City and County Schools, in this State, must, on or before the first day in July of each year, report to the Superintendent of Public Instruction, and to the Board of Supervisors of his county, the number of children therein between the ages of five and seventeen years, as appears by the latest returns of the census marshals on file in his office. It shall be the duty of every County Superintendent of Schools to inquire and ascertain whether the boundaries of the school districts in his county are definitely and plainly described in the records of the Board of Supervisors, and to keep in his office a full and correct transcript of such boundaries. In case the boundaries of the districts are conflicting or incorrectly described, he shall report such fact to the Board of Supervisors, and the Board of Supervisors shall immediately take such steps as are necessary to change, harmonize, and clearly define them. The County Superintendent of Schools, if he deem it necessary for the guidance of school census marshals, may order the description of

the district boundaries printed in pamphlet form, and pay for the same out of the county school fund.

NOTE.—Changed to improve the expression. The change includes San Francisco, having a “Superintendent of City and County Schools.”

SECTION 1552. To be amended to read as follows:

Sec. 1552. Each County Superintendent of Schools shall receive his actual and necessary traveling expenses, said expenses to be allowed by the Board of Supervisors, and to be paid out of the county general fund; *provided*, that this amount shall not exceed ten dollars per district per annum.

NOTE.—Changed to improve the expression.

SECTION 1553. To be amended to read as follows:

Sec. 1553. No County Superintendent of Schools who receives an annual salary of fifteen hundred dollars or more must follow the profession of teaching, or any other vocation that can conflict with his duties as Superintendent; but those receiving less than fifteen hundred dollars per annum may teach in the public schools of this State.

NOTE.—Changed to be specific in its application.

ARTICLE IV.

TEACHERS' INSTITUTES.

SECTION 1560. To be amended to read as follows:

Sec. 1560. The County Superintendent of Schools of every county in which there are twenty or more school districts, and of every city and county in the State, must hold at least one teachers' institute in each year; and every teacher employed in a public school in the county must attend such institute and participate in its proceedings; *provided*, that cities employing seventy or more teachers may have a separate institute, to meet at least once a year, the sessions to be of not less than three, nor more than five, days; *and provided further*, that teachers attending such city institute shall not be required to attend the county institute. The expenses of such city institutes, not exceeding two hundred dollars annually, shall be paid from the special school funds of said city.

NOTE.—Changed to improve the expression.

SECTION 1561. To be amended to read as follows:

Sec. 1561. In any county in which there are less than twenty school districts, the County Superintendent of Schools may, in his discretion, hold an institute. When directed by the County Board of Education,

he shall hold an institute, not oftener than once each year, at such time and place as the board may direct.

NOTE.—Changed to improve the expression.

SECTION 1564. To be amended to read as follows:

Sec. 1564. The County Superintendent of Schools must keep an accurate account of the actual expenses of said institute, with vouchers for the same, and draw his requisition upon the County Auditor, who shall draw his warrant on the unapportioned county school fund to pay said amount; *provided*, that such amount must not exceed two hundred dollars for any one year.

NOTE.—Changed to improve the expression.

SECTION 1565. To be amended to read as follows:

Sec. 1565. Except for a temporary certificate, every applicant for a teacher's certificate, or for the renewal of a certificate, upon presenting his application, shall pay to the County Superintendent of Schools a fee of two dollars, to be by him immediately deposited with the County Treasurer, to the credit of a fund to be known as the teachers' institute and library fund. All funds so credited shall be drawn out only upon the requisition of the County Superintendent of Schools upon the County Auditor, who shall draw his warrant in payment of the services of instructors in the county teachers' institute; *provided*, they be not teachers in the public schools of the county in which such institute is held; and for the purchase of books for a library for the use of the teachers of the county. At least fifty per cent of the teachers' institute and library fund shall be expended for books. The County Superintendent of Schools shall take charge of the teachers' library, prepare a catalogue of its contents, and keep a correct record of books taken therefrom and returned thereto.

NOTE.—Changed in order that there shall be a fee required for every certificate issued by either City or County Boards of Education. The following: "and except as provided in subdivision second of Section 1503 of the Political Code," is dropped from the section as it now stands.

ARTICLE V.

SCHOOL DISTRICTS.

SECTION 1577. To be amended to read as follows:

Sec. 1577. First—No new school district shall be formed at any other time than between the first day of November and the tenth day of February, nor at that time, unless the parents or guardians of at least fifteen census children, residents of such proposed new district, and residing at a greater distance than two miles by a traveled road

from the public school-house in the district in which said parents or guardians reside, present a petition to the County Superintendent of Schools, setting forth the boundaries of the new district asked for; *provided*, that the provision requiring that the petitioners shall reside a distance of more than two miles by a traveled road from the said public school-house may be dispensed with when the petition shall be signed by the parents or guardians of fifty or more census children, residents of a district containing more than three hundred census children.

Second—The boundaries of a school district, except as provided in section fifteen hundred and fifty-one of the Political Code, shall be changed only between the first day of November and the tenth day of February in any year, and then only when at least ten heads of families residing in the districts affected by the proposed change of boundaries shall present to the County Superintendent of Schools a petition setting forth the changes of boundaries desired, and the reasons for the same; *provided*, that two or more districts lying contiguous may at any time be united to constitute but one district, whenever a petition, signed by a majority of the heads of families residing in each of said districts, shall be presented to the County Superintendent of Schools.

Third—Joint districts (that is, districts lying partly in one county and partly in another) may be formed at any time between the first day of December and the fifth day of April in any year, whenever a petition signed by the parents or guardians of at least fifteen census children, residents of such proposed joint district, and residing at a greater distance than two miles by a traveled road from any public school-house, shall be presented to the County Superintendent of Schools of each county affected by the proposed formation of the joint district; *and provided further*, that the provision requiring that the petitioners shall reside a distance of more than two miles by a traveled road from any public school-house may be dispensed with, when the petition shall be signed by the parents or guardians of fifty or more census children, residents of districts any one of which contains more than three hundred census children. All the provisions relative to the formation of joint districts shall be by concurrent action of the County Superintendent of Schools and the Board of Supervisors of each county affected.

Fourth—The children residing in any newly formed district in any district whose boundaries have been changed, or in any joint district, shall be permitted to attend the school in the district or districts from which the newly formed district was constituted until the first day of July next succeeding the formation or change.

Fifth—Whenever a district shall be united with a municipality, or with another district, all funds belonging to said district shall be transferred, by requisition of the County Superintendent of Schools of the

county, upon the County Auditor, to the municipality or district with which said district is united.

NOTE.—Changed in order that all districts may be complete and organized by the 1st of March, thus enabling the Assessors to list district property. This will furnish the basis for taxation, and will enable new districts to provide buildings, etc., without delay.

Other changes are to improve the general expression.

SECTION 1578. To be amended to read as follows:

Sec. 1578. After giving due notice to all parties interested, by sending notice by registered mail to each of the trustees of any school district that may be affected by the proposed change, or by causing notices to be posted in three public places in each district affected, one of which shall be at the door of the school-house of said district, for at least one week, the County Superintendent of Schools must transmit the petition to the Board of Supervisors, with his approval or disapproval. If he approves the petition, he may note such changes in the boundaries as he may think desirable.

NOTE.—Changed to improve the expression.

SECTION 1581. To be amended to read as follows:

Sec. 1581. After the making of an order by the Board of Supervisors creating a new district, the school must be opened therein not later than the first Monday of October following the date of said order; otherwise said order shall be null and void.

NOTE.—Changed in order to be definite as to what year is meant.

SECTION 1583. To be amended to read as follows:

Sec. 1583. Whenever a district lies partly in one county and partly in another, the County Superintendent of Schools must apportion to such district such proportion of the school money to which such district is entitled, as the number of school census children residing in that portion of the district situated in his county bears to the whole number of school census children in the whole district. The text-books to be used, and the rules governing the school, in such district, shall be those adopted by the Board of Education of the county in which the school-house in said joint district is located. The trustees and teachers of joint districts shall make to the County Superintendent of Schools of each county in which the district is located, the reports which other trustees and teachers are required to make, and also the number of pupils attending the school from each county. The teacher in such joint district shall not be required to hold a certificate in both counties.

NOTE.—Changed to improve the expression.

ARTICLE VI.

ELECTIONS FOR SCHOOL TRUSTEES.

SECTION 1599. To be amended to read as follows:

Sec. 1599. The voting must be by ballot (without reference to the general election law in regard to nominations, form of ballot, or manner of voting).

NOTE.—Changed to improve the section. We think it unnecessary to retain the last three (3) lines as they now appear in the section.

SECTION 1600. To be amended to read as follows:

Sec. 1600. Any person offering to vote may be challenged by any elector of the district, and the judges of election must thereupon administer to the person challenged an oath, in substance as follows: "You do swear that you are a citizen of the United States, that you are twenty-one years of age, that you have resided in this State one year, in this county ninety days, and in this school district thirty days next preceding this election, and that your name appears on the great register of this county as an elector of this precinct, and that you have not before voted this day." If he takes the oath prescribed in this section, his vote must be received, otherwise his vote must be rejected.

NOTE.—Changed to comply with Section 1083 of the Political Code, relating to "qualifications of electors."

ARTICLE VII.

BOARDS OF SCHOOL DISTRICTS, AND CITY BOARDS OF EDUCATION.

SECTION 1615. To be amended to read as follows:

Sec. 1615. First—When a new district is organized, such of the trustees of the old district as reside within the boundaries of the new shall be trustees of the new district until the expiration of the time for which they were elected.

Second—When joint districts are formed, three trustees shall be elected at the June election next succeeding the formation thereof, to hold office for one, two, and three years respectively, from the first day of July next succeeding their election. The terms of the trustees in the districts uniting to form the joint district shall expire on the formation of said joint district, and the County Superintendent of Schools of the county in which lies the district having the greater number of census children shall appoint two trustees, and the County Superintendent of Schools of the county in which the other district lies shall appoint one trustee, to hold office until the first day of July next succeeding the formation of the joint district.

SECTION 1617. To be amended to read as follows:

Sec. 1617. The powers and duties of trustees of school districts, and of Boards of Education in cities, are as follows:

First—To prescribe and enforce rules, not inconsistent with law or those prescribed by the State Board of Education, for their own government and government of schools, and to transact their business at regular or special meetings called for such purpose, notice of which shall be given each member.

Second—To manage and control the school property within their districts, and to pay all moneys collected by them, from any source whatever, for school purposes, into the county treasury, to be placed to the credit of the special fund of their districts.

Third—To purchase text-books of the State series for the use of pupils whose parents are unable to purchase them; school furniture, including organs and pianos, and apparatus and such other things as may be necessary for the use of schools; *provided*, that, except in incorporated cities having Boards of Education, they purchase such books and apparatus only as have been adopted by the County Board of Education.

Fourth—To rent, furnish, repair, and insure the school property of their respective districts.

Fifth—When directed by a vote of their district, to build school-houses, or to purchase or sell school-lots, and to make, in the name of the district, conveyances on all property so purchased or sold.

Sixth—To employ the teachers, and except in incorporated cities having Boards of Education, immediately notify the County Superintendent of Schools, in writing, of such employment, naming the grade of certificate held by the teachers employed; also to employ janitors and other employés of the schools; to fix and order paid their compensation, unless the same be otherwise prescribed by law; *provided*, that no Board of Trustees shall enter into any contract with such employés to extend beyond the thirtieth day of June next ensuing; *and provided further*, that Boards of Trustees may elect teachers in the month of June for the succeeding school year.

Seventh—To suspend and expel pupils for misconduct.

Eighth—To exclude from schools children under six years of age; *provided*, that in cities and towns in which the kindergarten has been adopted, or may hereafter be adopted, as a part of the public primary schools, children may be admitted to such kindergarten classes at the age of four years.

Ninth—To enforce in schools the course of study and the use of text-books prescribed and adopted by the proper authority.

Tenth—To appoint district librarians, and enforce the rules prescribed for the government of district libraries.

Eleventh—To exclude from school and school libraries all books, publications, or papers of a sectarian, partisan, or denominational character.

Twelfth—To furnish books for the children of parents unable to purchase them; the books so furnished to belong to the school district, and to be kept in the district school library when not in use.

Thirteenth—To keep a register, open to the inspection of the public, of all children applying for admission and entitled to be admitted into the public schools, and to notify the parents or guardians of such children when vacancies occur, and receive such children into the schools in the order in which they are registered.

Fourteenth—To permit children from other districts to attend the schools of their district only upon the consent of the trustees of the district in which such children reside; *provided*, that should the trustees of the district in which children whose parents or guardians desire them to attend in other districts reside, refuse to grant their consent, the parents or guardians of such children may appeal to the County Superintendent of Schools, and his decision shall be final.

Fifteenth—On or before the first day of April in each year, to appoint a school census marshal, and notify the County Superintendent of Schools thereof; *provided*, that in any city, or city and county, the appointment of all school census marshals shall be subject to the approval of the County Superintendent of Schools.

Sixteenth—To make an annual report, on or before the first day of July, to the County Superintendent of Schools, in the manner and form, and on the blanks, prescribed by the Superintendent of Public Instruction.

Seventeenth—To make a report, whenever required, directly to the Superintendent of Public Instruction, of the text-books used in their schools.

Eighteenth—To visit every school in their district at least once in each term, and examine carefully into its management, condition, and wants. This clause to apply to each and every member of the Board of Trustees.

Nineteenth—Boards of Trustees may, and upon a petition signed by a majority of the heads of families resident in the district, as shown by the last preceding school census, must, call meetings of the qualified electors of the district for determining or changing the location of the school-house, or for consultation in regard to any litigation in which the district may be engaged, or be likely to become engaged, or in regard to any affairs of the district. Such meetings shall be called by posting three notices in public places, one of which shall be in a conspicuous place on the school-house, for not less than ten days previous to the time for which the meeting shall be called, which notices shall specify

the purposes for which said meeting shall be called; and no other business shall be transacted at such meetings. District meetings shall be organized by choosing a chairman from the electors present, and the district clerk shall be clerk of the meeting, and shall enter the minutes thereof on the records of the district. A meeting so called shall be competent to instruct the Board of Trustees:

1. In regard to the location or change of location of the school-house, or the use of the same for other than school purposes; *provided*, that in no case shall the school-house be used for purposes which necessitate the removal of any school desks or other school furniture;

2. In regard to the sale and purchase of school sites;

3. In regard to prosecuting, settling, or compromising any litigation in which the district may be engaged, and may vote money from the county fund of the district, not exceeding one hundred dollars in any one year, for any of these purposes. All funds raised by the sale of school property may be disposed of by direction of a district meeting. District meetings may be adjourned from time to time, as found necessary, and all votes instructing the Board of Trustees shall be taken by ballot. The Board of Trustees shall in all cases be bound by the instructions of the district meeting in regard to the subjects mentioned in this subdivision of this section; *provided*, that the vote in favor of changing the location of the school-house shall be two thirds of all electors voting at said meeting upon the proposition to change the location.

NOTE.—The fifth and sixth subdivisions are combined, while in the sixth as amended, the Board of Trustees are empowered to elect teachers in June for the succeeding school year, which will do much to avert the evil of changing teachers, who have heretofore sought new positions, pending the delay in organizing the new board in July. In the fifteenth, the approval of census marshals is taken from the city superintendent and given to the county superintendent, as the latter is charged with the apportionment of school moneys to cities.

SECTION 1621. To be amended to read as follows:

Sec. 1621. The Boards of School Trustees and City Boards of Education must use the school moneys received from state and county apportionments exclusively for the support of schools for that school year, until at least an eight months' school has been maintained. If at the end of any year, during which an eight months' school has been maintained, there is an unexpended balance, it may be used for the payment of claims outstanding against the district, or it may be used for the year succeeding. Any balance remaining on hand at the end of any school year in which school has not been maintained eight months may be re-apportioned by the County Superintendent of Schools, as other moneys are apportioned; *provided*, that if a district has been prevented from maintaining a school for eight months in any year in consequence of fire, flood, prevailing epidemic, or other cause

which may, upon investigation by the County Superintendent of Schools of the county, be determined to be a good and sufficient one, said balance shall not be re-apportioned.

NOTE.—Changed “shall” to “may” in the interest of very weak districts. A district may close at end of four or five months because of no funds. In July following, an apportionment is made (belonging to the year ending June 30 preceding.) It is not right to deprive the district of this apportionment. The present recommendations aim to prevent it.

SECTION 1622. To be amended to read as follows:

Sec. 1622. Boards of School Trustees and City Boards of Education may use the school moneys received from state and county apportionments during the school year for any of the purposes authorized by this chapter; but a sum equal to the amount received from the state apportionment, and at least sixty (60) per cent of the county apportionment, exclusive of the library fund, must be used exclusively for the payment of teachers of primary and grammar grade schools.

NOTE.—This change is calculated to prevent trustees from using money in excess of a reasonable amount, for purposes other than the actual maintenance of the school. The children will receive the direct benefit to which they are entitled if this recommendation prevails.

SECTION 1623. To be amended to read as follows:

Sec. 1623. Boards of Trustees and City Boards of Education are liable as such, and in the name of the district, for any judgment against the district for salary due any teacher on contract, and for all debts contracted under the provisions of this chapter, and they must pay such judgment or liabilities out of the school moneys to the credit of such district; *provided*, that the contracts mentioned in this section are not in excess of the school moneys accruing to the district for the school year for which the contracts are made, otherwise the district shall not be held liable.

NOTE.—Changed to be consistent with Section 1617.

ARTICLE VIII.

DISTRICT CENSUS MARSHALS.

SECTION 1635. To be amended to read as follows:

Sec. 1635. Whenever a district is formed lying partly in two adjoining counties, the census marshal must report to each County Superintendent of Schools the number of children in each county.

NOTE.—Changed to improve the expression.

SECTION 1639. To be amended to read as follows:

Sec. 1639. The compensation of census marshal must be audited and paid as other claims upon the school fund of the district are audited

and paid; *provided*, such compensation shall not exceed six dollars per day for time actually and necessarily employed; *and provided further*, that in no case shall the compensation be computed at a per capita sum; nor shall any order for such compensation be drawn by the trustees of any district, or by any Board of Education, until they shall have been notified by the County, City, or City and County Superintendent of Schools that the report of the census marshal has been approved by him. In case the report should not be approved by the County, City, or City and County Superintendent of Schools, the census marshal shall not be entitled to receive any compensation.

NOTE.—Changed to improve and complete the expression and intent.

ARTICLE IX.

CLERKS OF SCHOOL DISTRICTS.

SECTION 1650. To be amended to read as follows:

Sec. 1650. It is the duty of the clerk:

First—To call meetings of the board at the request of two members, and to act as clerk of the board, and keep a record of its proceedings, and an accurate account of the receipts and expenditures of school moneys.

Second—To keep his records and accounts open to the inspection of the electors of the district, in suitable books provided by the Board of School Trustees for that purpose.

Third—To perform such other duties as may be prescribed by the board.

NOTE.—Subdivision third is stricken out to correspond with the amendment to Section 1521, and subdivision fourth renumbered third.

ARTICLE X.

SCHOOLS.

SECTION 1663. To be amended to read as follows:

Sec. 1663. 1. All schools, unless otherwise provided by law, must be divided into primary and grammar grades, and the first five years, exclusive of the kindergarten classes, shall constitute the primary grades. The County Board of Education must, except in incorporated cities having Boards of Education, on or before the first day of July, prescribe the course of study in each grade for the ensuing year.

2. Except in incorporated cities having Boards of Education, the County Board of Education shall provide for issuing certificates of promotion to such pupils as are prepared to take up the work of a higher grade. It shall also provide for conferring diplomas of graduation on

those who have satisfactorily completed the course of study provided for the schools of the county.

3. The County Board of Education may amend and change, subject to section sixteen hundred and sixty-five, either of the above courses of study, whenever necessary.

NOTE.—Changed in order that there shall be uniformity in the several counties of the State as to the number of years in the primary grades.

SECTION 1672. To be amended to read as follows:

Sec. 1672. No publication of a sectarian, partisan, or denominational character must be used or distributed in any school, or be made a part of any school library; nor must any sectarian or denominational doctrine be taught therein. Any school district, town, or city, the officers of which knowingly allow any schools to be taught in violation of these provisions, forfeits all right to any state or county apportionment of school moneys; and upon satisfactory evidence of such violation, the County Superintendent of Schools or the Superintendent of Public Instruction must withhold both state and county apportionments.

NOTE.—Changed because the County Superintendent of Schools is the officer who apportions the school moneys to districts. San Francisco is the only city, or city and county, that could be reached by the Superintendent of Public Instruction in case of violation of this provision.

SECTION 1674. A new section to be added to read as follows:

Sec. 1674. In schools of more than one teacher, the Board of School Trustees, or City Board of Education, must designate one of the teachers as the principal of the school, who shall have general supervision of the entire school.

NOTE.—This is a new section and aims to fix authority and responsibility. Its enactment into law will settle many differences, and will strengthen many schools. It is a good measure.

ARTICLE XII.

TEACHERS.

SECTION 1696. To be amended to read as follows:

Sec. 1696. Every teacher in the public schools must:

First—Before assuming charge of a school, file his or her certificate with the County Superintendent of Schools; *provided*, that when any teacher so employed is the holder of a California state normal school diploma, accompanied by the certificate of the State Board of Education, as provided in subdivision third of section fifteen hundred and three of the Political Code, an educational or a life diploma of California, upon presentation thereof to the Superintendent, he shall record the name of said holder in a book provided for that purpose in his office, and the

holder of said diploma shall thereupon be absolved from the provisions of this subdivision.

Second—Before taking charge of a school, and one week before closing a term of school, notify the County Superintendent of Schools of such fact, naming the day of opening or closing. Boards of Education, and Boards of School Trustees, must in every case give to the teacher a notice of at least two weeks of their intention to close the term of school under their charge. No County Superintendent of Schools shall draw any requisition for the last month's salary of any teacher until said teacher has filed with him the notice required by this subdivision.

Third—Enforce the course of study, the use of the legally authorized text-books, and the rules and regulations prescribed for schools.

Fourth—Hold pupils to a strict account for their conduct on the way to or from school, on the playgrounds, or during recess; suspend for good cause any pupil from the school, and report such suspension to the Board of School Trustees or City Board of Education for review. If such action is not sustained by them, the teacher may appeal to the County Superintendent, whose decision shall be final.

Fifth—Keep a state school register, in which shall be left, at the close of the term, a report showing program of recitations, classification, and grading of all pupils who have attended school at any time during the school year. The County Superintendent of Schools shall in no case draw a requisition in favor of the teacher until the teacher has filed with him a certificate from the clerk of the Board of School Trustees to the effect that the provisions of this subdivision have been complied with.

Sixth—Make an annual report to the County Superintendent of Schools, at the time and in the manner and on the blanks prescribed by the Superintendent of Public Instruction. Any teacher who shall end any school term before the close of the school year, shall make a report to the County Superintendent of Schools immediately after the close of such term; and any teacher who may be teaching any school at the end of the school year, shall, in his or her annual report, include all statistics for the entire school year, notwithstanding any previous report for a part of the year. The County Superintendent of Schools shall in no case draw a requisition for the salary of any teacher for the last month of the school term, until the report required by this subdivision has been filed, and by him approved.

Seventh—Make such other reports as may be required by the Superintendent of Public Instruction, County Superintendent of Schools, Board of School Trustees, or City Board of Education.

Eighth—Issue to pupils on removing from the district transfers, signed

by the teacher, showing the grade of such pupil, and his standing in studies.

NOTE.—Changes in subdivisions first to seventh, inclusive, to improve the expression. Subdivision eighth is a new subdivision. Its aim is to save the time of the pupil by having him furnished with a certificate of standing upon his removal from a school district.

SECTION 1697. To be amended to read as follows:

Sec. 1697. A school month is construed and taken to be twenty school days, or four weeks of five school days each, including legal holidays.

NOTE.—Changed in order to settle the question of legal holidays occurring during a school month.

SECTION 1698. To be amended to read as follows:

Sec. 1698. In case of the dismissal of any teacher before the expiration of any oral or written contract entered into between such teacher and a Board of Trustees, for alleged unfitness or incompetence, or violation of rules, the teacher may appeal to the County Superintendent of Schools, and if said Superintendent decides that the removal was made without good cause, the teacher so removed must be reinstated, and shall be entitled to compensation for the time lost during the pending of the appeal.

NOTE.—Changed to improve the expression.

SECTION 1699. To be amended to read as follows:

Sec. 1699. First—Any teacher whose salary is withheld may appeal to the Superintendent of Public Instruction, who shall thereupon require the County Superintendent of Schools to investigate the matter, and present the facts thereof to him. The judgment of the Superintendent of Public Instruction shall be final; and upon receiving it, the County Superintendent of Schools, if the judgment is in favor of the teacher, shall, in case the trustees refuse to issue an order for said withheld salary, issue his requisition in favor of said teacher.

Second—Should any teacher employed by a Board of School Trustees for a specified time leave the school before the expiration of such time, without the consent of the trustees in writing, said teacher shall be deemed guilty of unprofessional conduct, and the Board of Education of the county is authorized, upon receiving notice of such fact, to suspend the certificate of such teacher for the period of one year. Should said teacher be the holder of an educational or a life diploma, the County Superintendent of Schools shall report the delinquency of the teacher to the State Board of Education, who are thereupon authorized to suspend said diploma for the period of one year.

NOTE.—Changed to improve the expression.

SECTION 1701. To be amended to read as follows:

Sec. 1701. No requisition for a warrant shall be drawn in favor of any teacher, unless such teacher is the holder of a proper certificate in force for the full time for which the requisition is drawn, nor unless he was employed by the Board of Trustees, or the City Board of Education, or by the County Superintendent of Schools, as provided in section ten hundred and forty-five.

NOTE.—Changed to improve the expression.

ARTICLE XIII.

DISTRICT LIBRARIES.

SECTION 1712. To be amended to read as follows:

Sec. 1712. First—The Board of School Trustees, and the City Board of Education in any city, must expend the library fund, together with such moneys as may be added thereto by donation, in the purchase of school apparatus and books for a school library, including books for supplementary work; and no warrant shall be drawn by the County Superintendent of Schools upon the order of any Board of Trustees against the library fund of any district, unless such order is accompanied by an itemized bill, showing the books and apparatus, and the price of each, in payment of which the order is drawn, and unless such books and apparatus have been adopted by the County, or City, or City and County Board of Education, all orders of the Boards of Trustees and Boards of Education for books or apparatus must in every case be submitted to the Superintendent of Schools of the county, or city, or city and county respectively, for his approval, before said books or apparatus shall be purchased.

Second—The trustees of each district shall cause each book now in their district school library, or that may hereafter be placed in said library, to be stamped on the fly-leaf, on the title-page, and on each one hundredth page of the book, with the words, "Department of Public Instruction, State of California, ——— County, ——— District Library," and the County Superintendent of Schools is hereby authorized and instructed to procure such stamp for each district in his county, and to pay for the same out of the county school fund of such district.

NOTE.—Changed to improve the expression.

SECTION 1713. To be amended to read as follows:

Sec. 1713. The library fund shall consist of not less than three, nor more than ten, per cent of the county school fund (the rate to be determined by the County Superintendent of Schools) annually apportioned to the districts; *provided*, that in cities or school districts having five

hundred or more census children, there shall be apportioned a sum not to exceed seventy-five dollars for every one thousand census children or fraction thereof of five hundred or more.

NOTE.—Changed the word “five” to “three,” because in many districts three per cent is enough for library purposes. Changed the conditions in large districts and in cities, because such districts and cities do not need more than seventy-five dollars for library purposes for every one thousand census children or fraction thereof not less than five hundred.

SECTION 1714 is stricken out, as Section 1713 as recommended covers the entire subject.

ARTICLE XVIII.

COUNTY SCHOOL TAX.

SECTION 1817. To be amended to read as follows:

Sec. 1817. The County Superintendent of Schools of each county having a population of less than two hundred thousand inhabitants, must, on or before the first regular meeting of the Board of Supervisors, in September in each year, furnish the Supervisors and Auditor, respectively, an estimate, in writing, of the minimum amount of county school fund needed for the ensuing year. This amount he must compute as follows:

First—He must ascertain, in the manner provided for in subdivisions one and two of section eighteen hundred and fifty-eight, the total number of teachers for the county.

Second—He must calculate the amount required to be raised at five hundred dollars per teacher. From this amount he must deduct the total amount of state apportionment, and the remainder shall be the minimum amount of county school fund needed for the ensuing year; *provided*, that if this amount is less than sufficient to raise a sum equal to six dollars for each census child in the county, then the minimum amount shall be such a sum as will be equal to six dollars for each census child in the county.

NOTE.—Changed to improve the expression.

SECTION 1818. To be amended to read as follows:

Sec. 1818. The Board of Supervisors of each county having less than one hundred thousand inhabitants must, annually, at the time of levying other county taxes, levy a tax to be known as the county school tax, the maximum rate of which must not exceed fifty cents on each one hundred dollars of taxable property in the county, nor the minimum rate be less than sufficient to raise a minimum amount reported by the County Superintendent of Schools in accordance with the provisions of the preceding section. The Supervisors must determine the

minimum rate of the county school tax, as follows: They must deduct fifteen per cent from the equalized value of the last general assessment roll, and the amount required to be raised, divided by the remainder of the assessment roll, is the rate to be levied; but if any fraction of a cent occur, it must be taken as a full cent on each one hundred dollars.

NOTE.—Changed to improve the expression.

ARTICLE XX.

GENERAL PROVISIONS RELATIVE TO SCHOOL FUNDS AND TAXES.

SECTION 1858. To be amended to read as follows:

Sec. 1858. All state school moneys apportioned by the Superintendent of Public Instruction must be apportioned to the several counties in proportion to the number of school census children, as shown by the returns of the school census marshals of the preceding school year; *provided*, that Indian children whose parents are on government reservations, or are living in the tribal relation, and Mongolian children not native born, shall not be included in the apportionment list. The County Superintendent of Schools in each county must apportion all state and county school moneys, as follows:

First—He must ascertain the number of teachers each district is entitled to by calculating one teacher for every seventy school census children, or fraction thereof, not less than twenty school census children, as shown by the next preceding school census; *provided*, that all children in any asylum and not attending the public schools, of whom the authorities of said asylum are the guardians, shall not be included in making the estimate of the number of teachers to which the district in which the asylum is located is entitled.

Second—He must ascertain the total number of teachers for the county, by adding together the number of teachers assigned to the several districts.

Third—Five hundred dollars shall be apportioned to each district for every teacher assigned to it; *provided*, that to districts having ten, and less than twenty, school census children, shall be apportioned four hundred dollars; *provided further*, that to districts having over seventy school census children and a fraction of less than twenty, there shall be apportioned twenty dollars for each census child in said fraction.

Fourth—All school money remaining on hand after apportioning to the districts the moneys provided for in subdivision three of this section, must be apportioned to the several districts in proportion to the average daily attendance in each district during the preceding school year. Census children, wherever mentioned in this chapter, shall be construed to mean those between the ages of five and seventeen years.

Fifth—Whenever in any school year, prior to the receipt by the counties, cities, or cities and counties of this State, of their state, county, or city school fund, the school districts or cities shall not have sufficient money to their credit to pay the lawful demands against them, the County, City, or City and County Superintendent of Schools shall give the Treasurer of said county, city, or city and county, an estimate of the amount of school money that will next be paid into the county, city, or city and county treasury, stating the amount to be apportioned to each district. Upon the receipt of such estimate it shall be the duty of the Treasurer of said county, city, or city and county, to transfer from any fund not immediately needed to pay claims against it, to the proper school fund, an amount not to exceed ninety per cent of the amount estimated by the Superintendent, and he shall immediately notify the Superintendent of the amount so transferred. The funds so transferred to the school fund shall be re-transferred by the Treasurer to the fund from which they were taken, from the first money paid into the school fund after the transfer.

NOTE.—Changed to improve the expression.

ARTICLE XXI.

MISCELLANEOUS PROVISIONS RELATING TO PUBLIC SCHOOLS.

SECTION 1869. To be amended to read as follows:

Sec. 1869. Any State, County, or City and County Superintendent of Schools, any State, County, or City and County Board of Education, who shall issue a certificate or diploma, except as provided for in this title, shall be guilty of a misdemeanor.

NOTE.—Changed to improve the expression.

SECTION 1874. To be amended to read as follows:

Sec. 1874. In the adoption of text-books, all County, City, and City and County Boards of Education shall be governed by the following rules:

First—Any books hereafter adopted as a part of a uniform series of text-books must be continued in use for not less than four years.

Second—No change of text-books must be made at any other time than in the months of April, May, or June of the year in which the change is made, and no changes shall be made to take effect till the beginning of the school term commencing after the thirtieth day of June of that year; and no books, other than those published by the State, shall be adopted by the Board of Education of any county, city, city and county, or be used as text-books in any of the public schools of this State, in the subjects of reading, orthography, English grammar,

arithmetic, geography, United States history, physiology, and civil government.

Third—At least sixty days' notice of any proposed change in text-books must be given by publication in a newspaper of general circulation, published in the county, if there be one, in which such change is to be made. If there be no newspaper published in the county, then such publication shall be made in any newspaper having a general circulation in the county. A copy of the newspaper containing such publication, with such notice marked, must, immediately after the first publication thereof, be by the secretary of the board transmitted to the State Board of Education, and the same, when received, must be filed by the secretary of said state board. Said notice shall state what text-books it is proposed to change; that sealed bids or proposals will be received by the board for furnishing books to replace them; the place where and the day and hour when all bids or proposals will be opened, and that the board reserves the right to reject any and all bids or proposals. Said notice shall be published in such newspaper as often as the same shall be issued after the first publication thereof.

Fourth—At the time and place specified in said notice, the Board shall meet and publicly open and read all of the bids or proposals which have been received by them, and shall make their awards thereon within ten days thereafter.

Fifth—Said bids or proposals must be accompanied by sample copies of the books proposed to be furnished, together with a statement of the wholesale and retail price at which the publisher agrees to furnish each book within the county, or at San Francisco, during the full time for which said books are to be adopted.

Sixth—If no satisfactory bids or proposals are received, then the books already in use may continue in use until changed, as herein provided.

Seventh—The publisher or publishers whose proposals shall be accepted, must enter into a written contract with the Board of Education making the award, and shall give a good and sufficient bond in a reasonable sum, to be fixed by the Board of Education, for the faithful performance thereof. Publishers of books already in use may bid under the provisions of this section as well as others, and such bids, if satisfactory, may be accepted by the board.

Eighth—High schools shall be exempt from the provisions of this section.

Ninth—Nothing in this section shall conflict with any provision of law relating to the state series of text-books; nor shall anything be construed to permit the adoption of any text-books upon any subject covered by the state series of books.

NOTE.—The word "April" is introduced in order to give a longer time during which a change in books may be made.

SECTION 1875. To be amended to read as follows:

Sec. 1875. If any city or district refuse or neglect to use the books that may be prescribed, or use any other text-books in any of the prescribed studies, the County Superintendent of Schools must withhold from such city, town, or district, twenty-five per cent of all state school moneys to which it may be entitled, until it comply; and any moneys so withheld must be apportioned by the Superintendent at the next apportionment of state school money, in the same manner as other school moneys in the treasury.

NOTE.—The expression "Superintendent of Public Instruction" is changed to "County Superintendent of Schools," because it is the County Superintendent of Schools who apportions school moneys to school districts—San Francisco is the only exception in the State. The Superintendent of Public Instruction apportions state school money to the County of San Francisco as to other counties. There is no apportionment by the school officers of San Francisco County.

TITLE IV.

NATIONAL GUARD.

CHAPTER I.

ENROLLED MILITIA.

SECTION 1895. To be amended to read as follows:

Sec. 1895. Every able-bodied male citizen of this State, except Mongolians and Indians, between the ages of eighteen and forty-five years, not exempt by law, is subject to military duty. But no alien is obliged to serve or bear arms against the State to which his allegiance is due.

SECTION 1897. To be amended to read as follows:

Sec. 1897. The County Assessor of each county in this State must, at the same time in each year when he prepares a roll containing the taxable inhabitants of his district or county, enroll all the inhabitants thereof subject to military duty, which roll must be sworn to by him, and delivered to the clerk of the Board of Supervisors at the same time he delivers the assessment roll. In the City and County of San Francisco the Tax Collector must perform the duties by this section imposed upon Assessors.

SECTION 1898. To be amended to read as follows:

Sec. 1898. If any Assessor, or the Tax Collector of the City and County of San Francisco, neglects or refuses to perform any of the duties required of him by this chapter, he is subject to the same liabilities as are provided by law for a neglect or refusal to perform any of

the duties required of him in the assessment of taxes, and, in addition, forfeits not less than three hundred, nor more than one thousand, dollars, to be sued for in the name of the people of the State, by the District Attorney of the respective counties, and when recovered to be paid into the military fund of the State. If the clerk of the Board of Equalization neglects or refuses to make and deliver to the brigadier-general of the brigade to which his county belongs the duplicate of the military assessment roll, as directed in this chapter, he forfeits not less than three hundred, nor more than five hundred, dollars, to be sued for, recovered, and disposed of in the same manner.

SECTION 1900. To be amended to read as follows:

Sec. 1900. The clerk of the Board of Supervisors must deliver to the brigadier-general of the brigade to which his county belongs a duplicate of such roll, certified by him, within ten days after the Board of Equalization have completed their corrections.

CHAPTER II.

ARTICLE I.

GENERAL PROVISIONS RELATING TO THE NATIONAL GUARD.

SECTION 1912. To be amended to read as follows:

Sec. 1912. The organized uniformed militia of the State of California are known as the National Guard of California. This force shall not exceed sixty-nine companies, of which sixty companies shall be cavalry, artillery, or infantry, as the board of location may direct, and five divisions of the naval battalion, and the other four companies shall be distributed to such arms of the service as the board of location may direct. The National Guard must be located throughout the State with reference to the military wants thereof, means of concentration, and other military requirements. The word "division," as used in this title in connection with the naval battalion, shall have the same meaning and effect as "company" when used in connection with the infantry.

SECTION 1918. To be amended to read as follows:

Sec. 1918. The commander-in-chief, by and with the advice and consent of the Senate, must appoint one major-general, and for each brigade of the National Guard of California, one brigadier-general, who must be citizens of the United States and of the State, and have served at least four years as officers in the National Guard of California; and the brigadier-generals must be residents of the localities within the brigades for which they are appointed. They take rank according to the date assigned them in their commissions, and hold their office until their successors are appointed and qualified.

SECTION 1919. To be amended to read as follows:

Sec. 1919. All staff officers shall be citizens of the State of California.

SECTION 1924. To be amended to read as follows:

Sec. 1924. All commissioned officers of regiments, battalions, troops, batteries, and companies of the National Guard must take rank according to the date assigned them by their commissions; and when two of the same grade are of the same date their rank must be determined by length of previous military service in the State; and if of equal service, then by lot. Officers of regiments, battalions, troops, batteries, and companies of the National Guard, in all cases, are of superior rank to officers of the enrolled militia of the same grade, irrespective of the date of their commissions.

SECTION 1936. To be amended to read as follows:

Sec. 1936. All officers, musicians, and privates of the National Guard who comply with all military duties, as provided in this chapter, are entitled to the following privileges and exemptions, viz.: exemption from road tax, and head tax of every description except the poll tax provided for in article thirteen, section twelve, of the Constitution, exemption from jury duty, and service on any *posse comitatus*. All officers, non-commissioned officers, musicians, and privates, who have faithfully served in the military service of this State for the space of seven consecutive years, and received the certificate of the adjutant-general certifying the same, are thereafter exempted from further military and jury duty, except in time of war. And the adjutant-general must issue such certificate of exemption when it appears that the party applying is entitled to the same.

NOTE.—Amended to conform to the requirements of the Constitution, Article XIII, Section 12.

SECTION 1945. To be amended to read as follows:

Sec. 1945. The State shall provide a bronze service medal, with a bronze bar attached thereto, for ten years' active service; for fifteen years' active service, a silver bar shall be attached; and for twenty years' active service, a gold bar shall be attached to the same medal. There shall be no other or different medals for service. Such medals shall be prepared and issued by the adjutant-general, upon application of the party entitled thereto, and upon proof of such service from the records of the National Guard.

NOTE.—The amendment consists in adding the last sentence, taken from Section 2101, which can now be repealed.

ARTICLE II.

COMPANIES AND THE DISTRIBUTION OF ARMS.

SECTION 1955. To be amended to read as follows:

Sec. 1955. 1. If such company has been organized and the officers elected in accordance with the provisions of law, orders, and regulations, the company must be listed in the office of the adjutant-general as a company of the National Guard, and the officers elected, if commissioned, hold office for the term of four years; *provided*, that in case of a vacancy occurring in any office during the term thereof the officer elected to fill such vacancy shall hold for the unexpired term;

2. All commissioned officers of the National Guard shall be commissioned by the Governor, but he may refuse to issue a commission to any officer elected or appointed, if, in his opinion, the person elected or appointed is in any way unqualified or unworthy to be an officer in the National Guard:

3. The Secretary of State shall make no charge for issuing a military commission.

NOTE.—The amendments consist in adding subdivision three, the same being Section 26 of the Act of April 15, 1880. (See amendments to Codes, 1880, page 57.) Also, increasing the terms of office, and providing for filling vacancies.

SECTION 1962. To be amended to read as follows:

Sec. 1962. The companies, troops, and batteries of the National Guard shall be composed of officers and men as follows:

1. Each company of infantry shall have not less than fifty, nor more than one hundred and three, officers, non-commissioned officers, and privates, which must include one commissioned officer, and may include one captain, one first lieutenant, one second lieutenant, one first sergeant, one quartermaster-sergeant, four sergeants, eight corporals, and two musicians;

2. Each troop of cavalry shall have not less than fifty, nor more than one hundred and three, officers, non-commissioned officers, and privates, which must include one commissioned officer, and may include one captain, two first lieutenants, one second lieutenant, one first sergeant, one quartermaster-sergeant, four sergeants, eight corporals, two trumpeters, two farriers, and one saddler;

3. Each foot battery shall have not less than fifty, nor more than one hundred and three, officers, non-commissioned officers, and privates, which must include one commissioned officer, and may include one captain, one first lieutenant, one second lieutenant, one first sergeant, one quartermaster-sergeant, four sergeants, eight corporals, and two trumpeters;

4. Each field battery shall have not less than sixty-one, nor more than one hundred and forty-nine, officers, non-commissioned officers, and privates, which must include one commissioned officer, and may include one captain, two first lieutenants, one second lieutenant, one first sergeant, one quartermaster-sergeant, six sergeants, eight corporals, two trumpeters, two farriers, and one saddler;

5. The line officers of the naval battalion shall be a commander and a lieutenant-commander, and each division shall consist of one lieutenant, one lieutenant junior grade, two ensigns, and not less than sixty, nor more than one hundred, petty officers and men;

6. The numerical strength, rank, titles, and insignia of rank of the companies, troops, and batteries, and their officers and men, of the National Guard, shall conform to the laws, rules, and regulations of the United States army and navy, so far as the same may be effectively applicable; and upon changes being made in the said laws, rules, and regulations of the United States army and navy, the commander-in-chief of the National Guard shall cause the same changes to be made in the National Guard to correspond thereto so far as they may be effectively applicable as aforesaid;

7. Each company, troop, battery, or division naval militia, may have not to exceed ten honorary members, who shall pay fifty dollars per annum each into the company, troop, battery, or naval division treasury, and shall thereupon be entitled to all the exemptions to which men on the active list are entitled, and shall not be required to drill or perform any military duty by reason of such membership;

8. The staff officers of the naval battalion shall consist of one adjutant, one ordnance officer, one paymaster, one engineer officer, and one surgeon, each with the rank of lieutenant junior grade; also, one assistant surgeon and one assistant ordnance officer, each with the rank of ensign. All such officers shall be appointed and commissioned as staff officers upon the staff of a colonel commanding a regiment in the National Guard are appointed and commissioned;

9. The organization of the naval militia shall conform generally to the provisions of the laws of the United States; and the system of discipline and exercise shall conform, as nearly as may be, to that of the navy of the United States as it now is, or may hereafter be, prescribed by Congress. When not otherwise provided for, the government of the naval militia shall be controlled by the provisions of the Political Code relating to the National Guard of California, and the Governor shall have power to alter, divide, annex, consolidate, or disband the same, whenever, in his judgment, the efficiency of the State forces will thereby be increased, and he shall have power to make such rules and regulations as may be deemed proper for the use, government, and instruction of the naval militia; but such rules and regulations shall

conform as nearly as practicable to those governing the United States navy;

10. The duty of the naval militia required by law, or any part of it, may be performed afloat in United States vessels. Officers and men of the naval militia mustered temporarily into the service of the United States for instruction and drill, and receiving compensation therefor from the United States, shall not, during the same term, be entitled to compensation from the State;

11. The Governor is authorized to apply to the President of the United States for the detail of commissioned and petty officers of the navy, to act as inspectors and instructors in the art of naval warfare;

12. The naval militia battalion and divisions shall receive the same allowance from the State as infantry battalions and companies.

NOTE.—Subdivision 5 changed considerably; 6 and 7 but slightly; Subdivisions 8, 9, 10, 11, and 12, being the essential provisions of an Act of the Legislature approved March 1, 1893. (Stats. 1893, page 62), are added.

SECTION 1965. To be amended to read as follows:

Sec. 1965. The commanding officer of each troop, battery, company, naval division, or signal corps must give such bonds and security as may be required by the adjutant-general to secure the State and the company from loss on account of misuse or misapplication of any State property or funds. Said bond must be with two or more good and sufficient sureties conditioned upon his faithful performance of all duties, and accounting for all property and moneys, both State and company funds, of which the commander, as ex officio treasurer, shall be the custodian.

SECTION 1966. To be amended to read as follows:

Sec. 1966. Such bonds being to his satisfaction, and on receiving duplicate receipts from such officer, the adjutant-general must make the issue.

SECTION 1970. To be amended to read as follows:

Sec. 1970. There must be an annual inspection and muster of the National Guard between January first and June thirtieth, each year, by brigade, regiment, battalion, or company, as may be deemed advisable by the commander-in-chief; and the commanding officer of each company must make out and certify the necessary muster rolls, showing the names and number of the members of the company, the officers in the order of their rank, and the privates in alphabetical order, and also a list of the ordnance, ordnance stores, clothing, and other property of the State, in the possession of the company. He must transmit, through the proper military channels, one copy of the roll and list attached to each superior headquarters.

SECTION 1974. To be amended to read as follows:

Sec. 1974. 1. Every elected or staff officer of the National Guard must, upon his appointment or reappointment, election or reelection, to any office in the National Guard, appear before an examining board for examination as to his qualifications for the office to which he has been appointed or reappointed, elected or reelected; *provided*, that the provisions of this section do not apply to surgeons, judges-advocate, chaplains, or the staff of the commander-in-chief;

2. Such boards shall consist of three officers for each brigade, three officers for the naval battalion, and three officers for the division staff. All of such boards to be designated by the commander-in-chief, and to be removable at his pleasure;

3. The officer duly appointed to preside at any election shall, immediately after declaring the result of such election, notify the officer or officers elected that they must appear before the examining board for examination, when notified by that board;

4. If the officer elected or reelected, and duly notified, does not appear before the said examining board when summoned by them, he shall be deemed to have declined his commission, and there shall be another election ordered. The filing of a proper certificate of said board with the officer ordering the election, that the officer has failed to pass an examination, or declined to appear before the board when notified, shall be deemed sufficient for ordering a new election.

SECTION 1976. To be amended to read as follows:

Sec. 1976. Application or propositions for membership in any troop, battery, naval division, or company of the National Guard shall be made only at a regular weekly meeting or assemblage of such organization; and the names of such applicants shall be posted in a conspicuous place in its headquarters or armory, until the next succeeding regular weekly meeting or assemblage of such organization, at which time, and not before, such applicants may be balloted for.

SECTION 1981. To be amended to read as follows:

Sec. 1981. Each brigadier-general commanding a brigade, with the consent of the commander-in-chief, may muster in and attach to it a hospital and ambulance corps, consisting of not to exceed twelve men for each regiment in his brigade. Such corps shall have such commissioned and non-commissioned officers as the commander-in-chief shall prescribe, and shall report directly to the brigade commander, who shall appoint such non-commissioned officers as may be prescribed. When for drill, or in the performance of duty, any expense shall be incurred by any such corps, such expense shall be paid by the State; *provided*, that the same shall have been first authorized by the com-

manding officer of the brigade, afterward approved by such commanding officer and superior officers, as provided by law in the case of other commands.

ARTICLE III.

REGIMENTS AND BATTALIONS.

SECTION 1982. To be amended to read as follows:

Sec. 1982. A regiment of the National Guard consists of not less than eight, nor more than twelve, companies. Each regiment shall be divided into battalions.

SECTION 1984. To be amended to read as follows:

Sec. 1984. The field officers of a regiment are one colonel, one lieutenant-colonel, and one major for each battalion. The field officer of a battalion is one major. No person shall be eligible for election as a field officer unless he shall have served at least two years in the National Guard of this State.

SECTION 1990. To be amended to read as follows:

Sec. 1990. The staff of a colonel commanding a regiment consists of one surgeon, with rank of major; one adjutant, with rank of captain; one assistant surgeon for each battalion, with rank of captain; one chaplain, with rank of captain; one battalion adjutant for each battalion, one quartermaster (who shall also act as paymaster), one commissary, one inspector of rifle practice (who shall be ordnance officer), each with the rank of first lieutenant; one sergeant-major, one principal musician, one quartermaster-sergeant, one commissary sergeant, one hospital steward, two color sergeants, one battalion sergeant-major for each battalion, one drum major. All of whom shall be appointed by, and hold office at the pleasure of, the colonel, or until their successors are appointed and qualified.

The staff of a major commanding an unattached battalion consists of one adjutant, with the rank of first lieutenant; one assistant surgeon, with the rank of captain; one commissary (who shall also be quartermaster), one inspector of rifle practice (who shall also be ordnance officer), each with the rank of second lieutenant; one sergeant-major, one commissary sergeant (who shall also be quartermaster-sergeant), one hospital steward, and two color sergeants. All of whom shall be appointed by such commanding officer, and hold office at his pleasure, or until their successors are appointed and qualified.

ARTICLE IV.

DIVISIONS AND BRIGADES.

SECTION 2008. A new section to be added to Article IV to read as follows:

Duties of inspectors of rifle practice.

Sec. 2008. It shall be the duty of the inspector-general of rifle practice to exercise general supervision over the rifle practice of the National Guard; to inspect, or cause to be inspected, from time to time, all ranges and practice grounds, and see that the prescribed regulations for rifle practice are carried out by the National Guard, and that the proper returns thereof are made out; to report direct to general headquarters, from time to time, the improvement in marksmanship among the uniformed forces, together with all other matters pertaining to his duties. Commanders of brigades, regiments, and companies shall furnish to the inspector-general of rifle practice such information as he shall require in regard to the rifle practice of their commands, and as to the number and condition of all targets or other military property of the State issued to their respective commands for use in rifle practice; and if, at the conclusion of his inspection of any armory, range, or practice ground, he shall find any property appertaining to rifle practice, which ought to be kept therein, missing, injured, unfit for use, or deficient in any respect, or that such range or practice ground is dangerous, he shall forthwith report the facts in respect thereto to general headquarters. He may, from time to time, examine the officers upon the theory and practice of marksmanship, and upon the system of instruction of rifle practice. It shall be his duty to attend, as far as practicable, all general competitions in marksmanship among the National Guard, and see that such competitions are conducted with fairness and according to prescribed regulations. He shall make an annual report to general headquarters, in which he shall state the result of all competitions in marksmanship, with the names of the winners, together with such suggestions as he may see fit. The brigade inspectors of rifle practice shall have supervision of all matters appertaining to rifle practice within the limits of their respective brigades, under the direction of the brigade commander, as above prescribed for the inspector-general of rifle practice. They shall report to such inspector-general of rifle practice, whenever required by him, the condition of rifle practice in their respective brigades, and what practice of that description has been carried on during any period, and shall also, at his request, report to him upon any matter relating to rifle practice which may require examination within their respective brigades. They shall attend the competition for any prizes that may be offered by the State to the command to which

they are attached, or that may be arranged between any of the companies of their brigades, and see that the same are conducted with fairness and according to the prescribed regulations for such competitive matches, and report to the inspector-general of rifle practice the result of such competitions, with the names of the winners, together with such suggestions as they may see fit to make. Regimental and battalion inspectors of rifle practice shall have supervision of all matters appertaining to rifle practice within the limits of their respective regiments or battalions, as prescribed for the brigade inspector of rifle practice. They shall report to said brigade inspector of their respective brigades, the condition of rifle practice in their respective regiments or battalions, and what practice has been carried on during any period, and shall also, at his request, report to him upon any matter relating to rifle practice which may require examination within their respective regiments or battalions. They shall attend the competitions for any prize that may be offered, or that may be arranged between any of the companies of their respective regiments or battalions, and see that the same are conducted with fairness and according to the prescribed regulations for such competitive matches, and report to the brigade inspector of rifle practice the result of all such competitions, with the names of the winners, together with such suggestions as they may see fit.

NOTE.—The above section contains the provisions of an Act of the Legislature approved March 30, 1878. (Stats. 1878, page 753.)

SECTION 2009. A new section to be added to this Code, to be known as Section 2009, and to read as follows:

Sanitary corps.

Sec. 2009. 1. The medical department of the National Guard of California is hereby organized into a sanitary corps, which shall consist of one surgeon-general, with the rank of colonel, who shall be the executive head of the corps, and such number of commissioned officers, non-commissioned officers, and privates as may be required to furnish an efficient service for the organized strength of the National Guard.

2. The commissioned strength of the sanitary corps shall be determined by the organization of the National Guard, to wit: To each organized division one chief surgeon, with the rank of colonel; to each organized brigade, one chief surgeon, with the rank of lieutenant-colonel; to each organized regiment, one surgeon, with the rank of major; and a surgeon, with the rank of captain, for each battalion.

3. The appointment of the commissioned officers of the sanitary corps shall be made by the commander-in-chief, as hereinafter provided.

4. The commander-in-chief is hereby authorized to transfer enlisted men of the National Guard to the sanitary corps, or cause to be enlisted for the same as many hospital sergeants, hospital corporals, and

privates as the service may require, who may be mounted, and permanently attached to the sanitary corps, under such regulations as the commander-in-chief may prescribe.

5. No person shall receive the appointment of surgeon unless he is a graduate of a medical school and unless he shall have been examined and approved by a medical board, consisting of not less than three surgeons, designated by the commander-in-chief, upon the recommendation of the surgeon-general.

6. No person shall be transferred to or enlisted into the sanitary corps unless he shall have passed a satisfactory examination, as to his qualifications, before a board of medical officers, to be appointed by the commander-in-chief, upon the recommendation of the surgeon-general.

7. Assignments of commissioned and non-commissioned officers and privates of the sanitary corps shall be made, and their duties prescribed, by the commander-in-chief, upon the recommendation of the surgeon-general.

8. Privates of the sanitary corps shall do duty as cooks, nurses, and attendants in hospitals, and as stretcher-bearers and ambulance-drivers and attendants in the field, and such other duties as may be required of them by proper authority.

9. The pay and emoluments of members of the sanitary corps shall be the same as provided by law for the pay of troops of the National Guard.

10. The sanitary corps shall be equipped and uniformed the same as the same department in the United States army. The funds to be expended by this department shall be expended by the authority of the commander-in-chief, upon the recommendation of the surgeon-general.

ARTICLE V.

PARADES AND DRILLS.

SECTION 2018. To be amended to read as follows:

Sec. 2018. The National Guard of California must parade in each year as follows:

1. On the fourth of July;
2. For target practice at such times as may be designated by the commander-in-chief, and at least once in each year;
3. These parades shall be made by brigade, regiment, battalion, or company, as may be deemed most advisable by the commander-in-chief, who shall issue orders to the National Guard to carry out the provisions of this section.

SECTION 2022. To be amended to read as follows:

Sec. 2022. The commander-in-chief may annually order an encampment for discipline and drill, either by division, brigade, regiment, battalion, or unattached company, and all troops assembled and encamped, under orders of the commander-in-chief, for not less than seven days, shall receive a sum equal to one dollar and twenty-five cents per day for each officer and man regularly on duty in such camp; *provided*, that the aggregate for each company of such last mentioned allowance of one dollar and twenty-five cents per day shall not exceed the sum of four hundred dollars per company; all officers and men shall receive, in addition to the above allowance, the actual fare to and from the place of encampment; *and provided further*, that when the division or a brigade is regularly assembled and encamped for discipline and drill for not less than seven days, then, in addition to the above allowance, the major-general, brigadier-general, the members of the staff of the commander-in-chief, and each staff officer on the general staff, shall receive from the State the sum of one dollar and twenty-five cents per day while regularly on duty in such camp; *and provided further*, that in any camp held in pursuance of orders from the commander-in-chief, all mounted officers and enlisted men shall receive the sum of two dollars per day for each horse necessarily used by them at such encampment; *and provided further*, that by all officers and enlisted men of companies of the naval battalion such services may be performed afloat. Aforesaid allowances shall be paid only when appropriations are made sufficient for that purpose.

CHAPTER IV.

COURTS-MARTIAL AND OF INQUIRY.

SECTION 2076. To be amended to read as follows:

Sec. 2076. The following officers may appoint courts-martial:

1. The commander-in-chief, for the trial of general officers, retired officers, and all officers of the staff of the commander-in-chief;
2. The major-general, for the trial of all staff officers of the division and brigades, and of field officers of regiments and battalions;
3. The brigadier-general, for the trial of officers and soldiers in their respective brigades;
4. The commanding officers of regiments and unattached battalions, for the trial of all enlisted men in their respective commands. For the trial of enlisted men of regiments or battalions, the commanding officer thereof may, at any time, appoint a summary court-martial, to consist of one officer whose rank is not below that of captain. For the trial of enlisted men of unattached companies, troops, or batteries, the brigade

commander may, at any time, appoint a summary court-martial, to consist of a first lieutenant of such company, troop, or battery;

5. The officer appointing said court shall fix the day on which it shall convene, and when convened the court may adjourn from time to time, as shall become necessary for the transaction of business; but the whole session of the court, from the day on which it shall convene until its dissolution, shall not exceed three weeks, and in case any vacancy shall happen in the court, or a new court shall be required, the officer ordering the court, or his successor in command, may fill such vacancy, or order a new court;

6. The officer constituting such court shall, before he enters on his duties as such, take the following oath: "I, —, do swear (or affirm) that I will well and truly try and determine, according to evidence, all matters between the people of the State of California and any person or persons who may come before the summary court-martial to which I have been appointed. And such oath shall be taken by him before a justice of the peace of the county in which he resides, or a field officer, and it shall be the duty of such justice of the peace or field officer to administer the oath without fee or reward;

7. Such court shall direct a non-commissioned officer, or other fit person or persons, to be by him designated, to summon all delinquents and parties accused to appear before the court, at a time and place to be by him appointed, which service shall be personal or by leaving such summons at the residences of such delinquents and parties accused;

8. Such non-commissioned officer, or other person or persons so designated, shall make the like returns and with like effect as commissioned and non-commissioned officers are authorized and required to make in cases of warning to a company or regimental parade, and shall be subject to the like penalties for neglect of duty;

9. The court shall be conducted in the same manner as summary courts-martial are in the service of the United States, and shall have the trial of all offenses, delinquencies, and deficiencies that occur in the regiment or battalion for which it shall have been appointed, and also of any that occur in the separate companies, troops, or batteries; and the said court shall have power to impose and direct to be levied all the fines or penalties to which enlisted men are declared to be subject by the provisions of this chapter;

10. The proceedings and sentence of any such court shall, without delay, be delivered to the officer ordering the court, who shall approve or disapprove the same within thirty days thereafter, and shall give notice of his approval or disapproval to the president thereof; and from the sentence of any such court imposing a fine or penalty for any offense, delinquency, or deficiency, an appeal, if made within twenty days after the fine or penalty was made known to the person fined, shall be

allowed to the officer ordering the court, or to his successor in command, and he may remit or mitigate such penalty or fine.

SECTION 2084. To be amended to read as follows:

Sec. 2084. Every Sheriff and Constable must serve all orders, subpoenas, or process delivered to him for that purpose by any member of a court-martial or court of inquiry.

CHAPTER V.

THE BOARD OF MILITARY AUDITORS.

SECTION 2094. To be amended to read as follows:

Sec. 2094. There must be audited and allowed by the board of military auditors, and paid out of the appropriation for military purposes, upon the warrant of the State Controller, to the commanding officer of each infantry or artillery company of the National Guard, the sum of one hundred dollars per month; to the commanding officer of each light battery having not less than four guns, with which they regularly drill and parade, and to the commanding officer of each troop of cavalry, the sum of two hundred dollars per month; and to the commanding officer of each division of the naval battalion, the sum of one hundred dollars per month; the sum so paid to be used for armory rent, care of arms, and proper incidental expenses of the company. There must also be audited, allowed, and paid, out of the same appropriations, to the commanding officer of each regiment or battalion, the sum of six dollars per month for each company in his command, for clerical expenses, stationery, printing, and postage; and if the regiment or battalion has more than four companies, and has attached to it an organized and uniformed band of not less than twenty people, the additional sum of thirty-five dollars per month for such band; to the major-general, six hundred dollars per annum; to the brigadier-general of each brigade, four dollars per month for each company in his brigade. and to each company, a sum necessary for uniforms, and to keep the same in repair, not to exceed one hundred and fifty dollars per annum; and to the adjutant-general, four thousand dollars per annum, to be expended by him in promoting rifle practice. There shall also be paid, from the military appropriations of the State, a sum not exceeding five hundred dollars for the first year of its existence, to the brigadier-general for a hospital and ambulance corps in their respective brigades, which sum shall be expended in the purchasing of proper supplies, equipments, and medicines for such corps, and thereafter to such corps there shall be paid a sum, for the same purpose, of not exceeding five hundred dollars per annum.

SECTION 2099. To be amended to read as follows:

Sec. 2099. The annual sum of two hundred and fifty dollars may be audited by the board, and paid out of the appropriation for military purposes, to each company of the National Guard of fifty members or over, and an amount in proportion to every company of less than fifty members. The amount so audited and allowed must be paid to the commanding officers of such companies for the use thereof.

SECTION 2101. To be repealed.

NOTE.—The provisions of this section, in an amended form, are contained in Section 1945 of this Code.

SECTION 2105. To be amended to read as follows:

Sec. 2105. There must be audited and allowed by the board of military auditors, and paid out of the appropriations for military purposes, to the commanding officer of each signal corps in the National Guard, the sum of twenty-five dollars per month for each ten enlisted members of said corps, the sum so paid to be used for armory rent, care of arms, and proper incidental expenses of the signal corps. Demand shall be made and presented in the same manner as for the expenses of a company.

Chapter I of Part III, Title V, Article I, containing Sections 2136, 2137, 2138, 2139, 2140, 2150, 2151, 2152, 2153, 2154, 2155, 2165, 2166, 2167, 2168, 2169, 2179, 2180, 2181, 2182, 2183, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, and 2222, is to be revised and entirely rewritten. The Commissioners have in preparation a measure to occupy this chapter, designed to apply to all the asylums for the insane in this State, providing for their harmonious and uniform management and control. This proposed enactment will be submitted to the Legislature at the commencement of its session.

CHAPTER II.

INSTITUTION FOR THE DEAF AND THE BLIND.

ARTICLE I.

GENERAL PROVISIONS.

SECTION 2237. To be amended to read as follows:

Sec. 2237. The institution for the deaf and the blind, located at Berkeley, Alameda County, is a part of the school system of the State, except that it shall derive no revenue from the public school fund, and has for its object the education of the deaf and the blind who, by

reason of their infirmity, cannot be taught in the public schools. It shall be known and designated as the Institution for the Deaf and the Blind.

SECTION 2238. To be amended to read as follows:

Sec. 2238. Every deaf or blind child, of suitable age and mental capacity for instruction, and whose parents or guardians are actual residents of the State, is entitled to education and maintenance, except clothing, in this institution, free of charge.

SECTION 2239. To be amended to read as follows:

Sec. 2239. Any such deaf or blind child, whose parents or guardians are not residents of the State, is entitled to the benefits of the institution upon paying to the treasurer thereof three hundred dollars for each academic year, to be paid semi-annually in advance. If the parents or guardians of any pupil in the institution shall be unable to clothe such child, the parent or guardian may testify to such inability before the judge of the Superior Court of the county wherein he or she is resident, and if said judge is satisfied that the parent or guardian is not able to provide suitable clothing for the child, he shall issue a certificate to that effect; and upon presentation of such certificate, it shall be the duty of the directors of said institution to clothe the child, the expenses to be paid out of the appropriation made for the support of the institution.

SECTION 2240. To be repealed.

NOTE.—The provisions of this section are incorporated in the preceding section.

SECTION 2242. To be repealed.

NOTE.—The office of State Geologist has ceased to exist, and this section has been inoperative.

SECTION 2243. To be amended to read as follows:

Sec. 2243. The salaries mentioned in this chapter must be paid monthly out of the moneys appropriated for the support of the institution.

SECTION 2244. To be amended to read as follows:

Sec. 2244. The official bonds required by the provisions of this chapter must be approved by the board, and filed and recorded in the office of the Secretary of State.

ARTICLE II.

BOARD OF DIRECTORS.

SECTION 2255. To be amended to read as follows:

Sec. 2255. The powers and duties of the board are as follows:

1. To make by-laws, not inconsistent with the laws of the State, for their own government, and the government of the institution;
2. To elect a principal, and to discharge him whenever, in their opinion, the interests of the institution require it;
3. To elect a treasurer, who shall not be a member of the board of directors;
4. To elect a physician for the institution for a term of two years, who shall not be a member of the board of directors;
5. To fix the compensation of teachers and employés;
6. To make diligent inquiry into the departments of labor and expense, the condition of the institution, and its prosperity;
7. To receive gifts or bequests of money or property for the benefit of the institution, and to invest or expend the same according to the wishes of the donor. All official acts performed by them shall be in the name of the "Institution for the Education of the Deaf and the Blind," and by that name they may make loans, and maintain action to enforce the payment thereof;
8. To hold stated meetings at the institution at least once in every three months;
9. To keep a record of their proceedings;
10. To report to the Governor a statement of the receipts and expenditures, the condition of the institution, and of such other matters touching the duties of the board as they deem advisable;
11. To provide in the institution rooms and board for the principal and his family.

ARTICLE III.

PRINCIPAL TEACHER.

SECTION 2267. To be amended to read as follows:

Sec. 2267. The principal must have had not less than three years' experience in the art of teaching the deaf.

SECTION 2268. To be amended to read as follows:

Sec. 2268. He is the chief executive officer of the institution, with powers and duties as follows:

1. To superintend the grounds, buildings, and property of the institution;

2. With the consent of the board of directors, to fix the number of, and appoint and remove, the teachers and employés;
3. To prescribe and enforce the performance of the duties of teachers and employés;
4. To control the pupils, and to prescribe and enforce a system of instruction;
5. To live at the institution;
6. To keep a record of his official acts in the manner prescribed in the by-laws;
7. To estimate quarterly, in advance, the expenses of the institution, and report such estimates to the board of directors;
8. To make up his annual accounts to the first of July in each year, and as soon thereafter as possible report a statement thereof, and of the condition of the institution, to the board of directors;

ARTICLE IV.

TREASURER.

SECTION 2280. To be amended to read as follows:

Sec. 2280. It is the duty of the treasurer:

1. To act as secretary of the board of directors;
2. To keep the accounts of the board, the receipts, expenditures, assets, and liabilities of the institution;
3. To report quarterly to the board a statement, under oath, of the expenditures and receipts of the preceding quarter;
4. To perform such other duties as may be required of him by the by-laws or the board of directors.

SECTION 2327. To be amended to read as follows:

Sec. 2327. The control and management of the University of California, and the state normal schools, are provided for in title three of part three of this Code.

NOTE.—The amendment consists in changing the word "school" to "schools."

SECTION 2328. To be amended to read as follows:

Sec. 2328. The control and management of the state prisons is provided for in "An act to regulate and govern the state prisons of California," approved March nineteenth, eighteen hundred and eighty-nine, and acts amendatory thereof and supplemental thereto.

CHAPTER II.

HIGHWAYS.

ARTICLE I.

ENUMERATION OF HIGHWAYS.

SECTION 2618. To be amended to read as follows:

Sec. 2618. In all counties of this State public highways are roads, streets, alleys, lanes, courts, places, trails, and bridges, laid out or erected as such by the public, or if laid out and erected by others, dedicated or abandoned to the public, or made such in actions for the partition of real property; *provided*, that no route of travel used by one or more persons, over the lands of another, shall hereafter become a public road or byway by use, unless so declared by the Board of Supervisors, or by dedication by the owner of the land affected.

SECTION 2621. To be repealed.

NOTE.—The provisions of this section are contained in Sections 2618 and 2623.

SECTION 2623. To be amended to read as follows:

Sec. 2623. Any road laid out by the Board of Supervisors, as provided in this chapter, or used and worked as therein provided, shall not be vacated or cease to be a highway until so ordered by said board, and each county shall be deemed to have acquired title to any road opened over any land in conformity to any order made by its Board of Supervisors, pursuant to this chapter, after one year shall have elapsed from the time of making the order opening the road; *provided*, no contest shall have previously been entered.

NOTE.—The amendment consists in the addition of the proviso.

ARTICLE II.

RULES AND RESTRICTIONS RESPECTING THE USE OF HIGHWAYS.

SECTION 2633. To be amended to read as follows:

Sec. 2633. Any owner or occupant of land adjoining a highway not less than three rods wide may plant deciduous trees in and along said highway on the side contiguous to his land. They must be set in regular rows, at a distance of at least twenty feet from each other, and not more than six feet from the boundary of the highway. If the highway is more than eighty feet wide, the row must not be less than six, nor more than twelve, feet from the boundary of the highway. Whoever willfully injures any of them is liable to the owner or to the

occupant for the damage which is thereby sustained; *provided*, if, in the judgment of the Board of Supervisors, the whole width of such road is needed for use for highway purposes, the whole thereof may be so used.

NOTE.—The word “deciduous” is inserted before “trees” to prevent the planting of evergreens, which shade the road in winter, when not needed, and prevent the drying of the road in wet weather.

ARTICLE III.

POWERS AND DUTIES OF HIGHWAY OFFICERS.

SECTION 2643. To be amended to read as follows:

Sec. 2643. The Boards of Supervisors of the several counties of the State shall have general supervision over the roads within their respective counties. They must, by proper order:

1. Cause to be surveyed, viewed, laid out, recorded, opened, and worked, such highways as are necessary to public convenience, as in this chapter provided;

2. Cause to be recorded as highways all highways which have become such by usage, dedication, or abandonment to the public, or by any other means provided by law, and to prepare and record proper deeds and titles thereto;

3. Abolish or abandon such as are not necessary;

4. Acquire the right of way over private property for the use of public highways, and for that purpose require the District Attorney to institute proceedings under title seven, part three, of the Code of Civil Procedure, and to pay therefor from the general road fund, or the district road fund of the county;

5. Levy a property tax for road purposes;

6. Cause to be erected and maintained, at the intersections and crossings of highways, guide-posts, properly inscribed;

7. Cause the road tax collected each year to be apportioned to the several road districts entitled thereto, and kept by the County Treasurer in separate funds;

8. Audit all claims on the funds set apart for highway purposes, and specify the fund or funds from which the whole or any part of any claim or claims must be paid;

9. In their discretion, they may provide for the establishment of gates on the public highways in certain cases, to avoid the necessity of building road fences, and prescribe rules and regulations for closing the same, and penalties for violating said rules; *provided*, that the expense for the erection and maintenance of such gates shall in all cases be borne by the party or parties for whose immediate benefit the same shall be ordered;

10. For the purpose of watering roads in any part of the county, the

Board of Supervisors may erect and maintain waterworks, and for such purpose may purchase or lease real or personal property. The costs for such waterworks, and the watering of said roads, may be charged to the general county fund, the general road fund, or the district fund of the district or districts benefited;

11. Whenever it shall be determined that any grading, graveling, macadamizing, ditching, sprinkling, or other work upon highways, is necessary, and is to be done, and where the estimated cost of such work amounts to three hundred dollars, the Board of Supervisors must, by proper order, direct the County Surveyor to make definite surveys of the proposed work, and to prepare profiles and cross-sections thereof, and to submit the same, with the estimate of the amount or amounts of work to be done, and the cost thereof, and with specifications therefor. Said report shall be prepared in duplicate, one copy to be filed in the Surveyor's office, and the other to be filed with the clerk of the Board of Supervisors. The board, upon receipt of such report, must advertise for bids for the performance of the work specified. Such advertisement for bids must be published for two weeks in two newspapers, one published at the county seat and the other at a point nearest the proposed work. Such advertisement must be in the following form:

“Office of the Clerk of the Board of Supervisors,
 _____ County, _____, 189—.

“Sealed bids will be received by the clerk of the Board of Supervisors of _____ County, at his office, until _____ o'clock, — M., _____, 189—, for _____, on _____, in _____ District, in _____ County.

“Specifications for this work are on file in the office of the said board, to which bidders are hereby referred.

“_____,”

“Clerk of the Board of Supervisors of the County of _____.”

And such advertisement must also be posted, for at least two weeks prior to the opening of the bids for the proposed work, in three conspicuous places in the district or districts in which the proposed work lies, and one at the site of the proposed work. Bids must be inclosed in a sealed envelope, addressed to the clerk of the Board of Supervisors, and must be indorsed, “Bids for _____,” and must be delivered to said clerk prior to the hour specified in the advertisement. The board shall publicly open and read such bids as may be submitted, and must award the contract for the work to the lowest bidder; unless it shall appear to the board that the bids are too high, and the work can be done more cheaply by day labor, in which case the bids must be rejected, and the work ordered done by the road commissioner or commissioners in whose district or districts the work may be situated. In case the work shall

be let to contract, monthly or quarterly payments may be made thereon, upon the receipt of a certified estimate by the County Surveyor of the amount of work done during the preceding month or quarter, to the extent of seventy-five per cent of the value of said work, the remaining twenty-five per cent being due on the completion of the work. The services of the surveyor in making such partial estimates must be paid for by the contractor. Upon the completion of the work, the County Surveyor must examine the same, and, if completed in accordance with the specifications therefor, he must submit to the Board of Supervisors a certificate, over his signature and official seal, to the effect that such work by the contractor therefor has been completed in accordance with the specifications therefor, and recommending its acceptance. The Board of Supervisors shall thereupon audit the same, and direct its payment out of the proper fund or funds.

SECTION 2645. To be amended to read as follows:

Sec. 2645. Road commissioners, under the direction and supervision and pursuant to orders of the Board of the Supervisors, must:

1. Take charge of the highways within their respective districts, and shall employ all men, teams, watering-carts, and all help necessary to do the work in their respective districts, when the same is not let by contract; *provided*, that no road commissioner shall be interested, directly or indirectly, in any contract work done, or material supplied, upon the highways in the county of which he is an officer;

2. Keep them clear from obstructions, and in good repair, and destroy, or cause to be destroyed, at least once a year, all thistles, Mexican cockleburrs, of any kind, and all noxious weeds, growing or being on any portion of the public highways or public roads in their respective districts;

3. Cause banks to be graded, bridges and causeways to be made when necessary, keep the same in good repair, and renew them when destroyed.

NOTE.—Amended by adding the proviso to subdivision one.

ARTICLE IV.

HIGHWAY TAXES.

SECTION 2652. To be amended to read as follows:

Sec. 2652. The Board of Supervisors may, annually, at any regular meeting held between the first days of January and March of each year, levy on each male person over twenty-one and under fifty-five years of age found in each road district during the time for the collection of road poll taxes for that year, excepting all persons who were honorably discharged from service in the army or navy of the United States at any

time within the first day of April in the year of our Lord eighteen hundred and sixty-one, and the first day of September in the year of our Lord eighteen hundred and sixty-five, an annual road poll tax not exceeding three dollars; and from every such person not above excepted, in a road district, who has not paid the same in some other district, must be collected the amount of road poll tax so levied. Said road poll tax shall be collected by the County Assessor in the same manner that state poll taxes are collected, and all remedies given by law for the collection of state poll taxes shall apply to and be in force for the collection of road poll taxes. Road poll tax receipts, in blank, signed and numbered in the same manner that other poll tax receipts are signed and numbered, shall be delivered by the Auditor of the county to said County Assessor on or before the first Monday of March of each year; and said Assessor shall be charged with the amount of such road poll tax receipts delivered to him, and be credited with those returned, and shall settle with the Auditor, and pay over the amounts collected, in the manner provided by section thirty-eight hundred and fifty-three of this Code. Such road poll tax so collected shall be applied to and constitute a part of the district road fund of the district from which it was collected.

SECTION 2654. To be amended to read as follows:

Sec. 2654. The annual property tax for road purposes must be levied by the Board of Supervisors, at their session when the tax is by them levied for county purposes. This property road tax, when levied, must be annually assessed and collected by the same officers and in the same manner as other state and county taxes are levied, assessed, and collected, and turned over to the County Treasurer.

ARTICLE V.

PERFORMANCE OF HIGHWAY LABOR AND COMMUTATION.

SECTION 2671. To be amended to read as follows:

Sec. 2671. Corporations, or other employers of persons, in any road district subject to the road tax, are chargeable for the road poll tax assessed against their employés to the extent of any credit in their hands not exceeding such tax; *provided*, the Assessor shall first give notice to such employer, or the managing agent of such corporation; and from the time of such notice the amount of any credit in his hands, or that shall thereafter accrue, sufficient to satisfy said tax, shall be paid to the Assessor, whose receipt shall be evidence in bar of the prosecution of any action by the employé against the principal for the recovery of the same.

ARTICLE VI.

LAYING OUT, ALTERING, AND DISCONTINUING ROADS.

SECTION 2681. To be amended to read as follows:

Sec. 2681. Any ten or more resident freeholders of a section which may be benefited by the construction of a new road, the correction, or alteration, or the discontinuance and abandonment of an existing road, may petition the Board or Boards of Supervisors of the county or counties in which the proposed or existing road, in whole or in part, lies, in the form herein provided. In case the petition relate to a section situated in more than one county, copies of the petition must be presented to the Board of Supervisors of each county.

SECTION 2683. To be amended to read as follows:

Sec. 2683. The petition must be accompanied by a good and sufficient bond, to be approved by the Board of Supervisors, in double the amount of the probable cost of surveying, viewing, and estimating the exact nature and cost of the matter petitioned for, and conditioned that in case the petition be not granted the bondsmen will pay all costs of surveying, viewing, and estimating the nature of the matters petitioned for, and further providing that in no case shall any costs incurred become a charge against the county, or payable out of any county funds.

SECTION 2684. To be amended to read as follows:

Sec. 2684. Upon filing such petition and bond, the Board of Supervisors may, if they deem it advisable, appoint three viewers, one of whom must be the County Surveyor, one the County Assessor, and a distinterested freeholder of the county, not resident in the district affected, to view and survey any proposed alteration of an old, or opening of a new, road, and submit to the board an estimate of the change, alteration, or opening, together with the probable cost thereof, including the purchase of the right of way, and their views of the necessity thereof.

SECTION 2685. To be amended to read as follows:

Sec. 2685. The road viewers must be sworn to discharge their duties faithfully, must view and lay out the proposed alterations or new road over the lightest grades and most direct alignments which the nature and topography of the country will permit; they must notify the resident owners, or agent of the owners, of the lands affected by the matter petitioned for. A majority number of the viewers, providing one shall be the County Surveyor, shall be competent to act in all matters pertain-

ing to their duties mentioned in this chapter. The Board of Supervisors, in making the order appointing viewers, may, in their discretion, direct said viewers to first view the proposed road, and if, in the opinion of the viewers, the road is impracticable or unnecessary, the said viewers shall discontinue further proceedings in the matter, and report accordingly.

SECTION 2687. To be amended to read as follows:

Sec. 2687. The viewers must be paid as follows: The Assessor must be paid his actual expenses whilst in the discharge of his duty. The Surveyor shall receive ten dollars per day, and if the services of assistants, chainmen, and laborers be necessary, the Surveyor must present a sworn bill of the cost of their services and actual expenses, which must be paid as herein provided. The third member of the board of viewers shall be paid three dollars per day for the time occupied in the discharge of his duties. These payments, in case the petition be not granted, must be paid by the signers of the bond accompanying the petition, and shall in no way become due or be paid from highway funds. In case the petition be favorably acted upon, these expenses must be paid from such highway fund or funds, as the Board of Supervisors shall direct.

SECTION 2691. To be amended to read as follows:

Sec. 2691. All awards by agreement, determined by the board or the proper court, must be paid out of the road fund of the district, except that which may be paid by interested parties, on the order of the Board of Supervisors, and except also that whenever it appears to the Board of Supervisors that any road district would be unreasonably burdened by the payment of such awards and expenses, the Board of Supervisors, by a two-thirds vote, may cause a portion of such awards and expenses to be paid from the general road fund; *provided, however*, that not to exceed ten per cent of the general road fund shall be devoted to such purposes in any one fiscal year. If the road lies in more than one district, the Board of Supervisors must proportionately divide the awards and other costs between said districts; *provided, however*, that when money is paid out by any interested person, the same may be given to the credit of either fund, at the discretion of the board.

SECTION 2692. To be amended to read as follows:

Sec. 2692. Private or by-roads may be opened, laid out, or altered for the convenience of one or more residents or freeholders of any road district, in the same manner as public roads are opened, laid out, or altered, except that only one petitioner shall be necessary, who must be either a resident or a freeholder in said road district; and the Board of Supervisors may, for like cause, order the same to be viewed, opened, laid out, or altered, the person for whose benefit the said road is required

paying the damages awarded to land-owners, and keeping the same in repair; *provided*, that the petitioners must accompany the petition with a bond mentioned in section twenty-six hundred and eighty-three, conditioned as provided in said section, and with a further condition that the bondsmen will pay to the person over whose land said road is sought to be opened his necessary costs and disbursements in contesting the opening of such road, in case the petition be not granted and the road finally not opened.

ARTICLE VII.

ERECTION AND MAINTENANCE OF BRIDGES.

SECTION 2715. To be amended to read as follows:

Sec. 2715. If the road commissioner of any road district, chargeable with the repair of a bridge, fails to make the needed repairs, after being informed that a bridge is impassable or unsafe, and is requested to make the same by two or more freeholders of the district in which it is situate, or the two districts which it unites, the freeholders may represent the fact to the Board of Supervisors, who, upon being satisfied that the bridge is unsafe, must cause the same to be repaired.

SECTION 2716. To be amended to read as follows:

Sec. 2716. The Board of Supervisors of each county must hold special meetings on the third Monday in July and the third Monday in January, for the consideration of highway matters and interests. At these meetings each Supervisor, as ex officio road commissioner, must submit, in writing, a report upon the expenditures made and work performed in his district during the previous six months. Such report must show:

1. The mileage of permanently located and improved roadway, and by what method, and from what material constructed;
2. The number, location, and character of permanent bridges, culverts, and drains constructed;
3. The character and extent of water supply developed for road-sprinkling, and the mileage of sprinkled road, with the total and per mile cost;
4. The character, condition, and number of all road machinery and tools owned by the county or district, and used in his district;
5. Recommendations as to the highways, and the management of his district for the ensuing six months, and the scope of work contemplated;
6. In the case of retiring commissioners, he shall make a report to and through his successor.

ARTICLE VIII.

OBSTRUCTION AND INJURIES TO HIGHWAYS.

SECTION 2731. To be amended to read as follows:

Sec. 2731. If any highway duly laid out or erected is encroached upon, by fences, buildings, or otherwise, the road commissioner of the district must, in writing, require the encroachment to be removed from the highway.

NOTE.—Amended by requiring that notice “must” be given, and always in writing.

SECTION 2734. To be amended to read as follows:

Sec. 2734. If the encroachment be denied, and the owner, occupant, or person controlling the matter or thing charged with being an encroachment, refuses either to remove or permit the removal thereof, the Board of Supervisors must direct the District Attorney to institute an action to abate the same as a nuisance; and if he recovers judgment, he may, in addition to having the same abated, recover ten dollars for every day such nuisance remained after notice, and also his costs in said action.

NOTE.—Amended by dropping the words “road overseer” and providing that the Board of Supervisors must require the District Attorney to commence the action.

SECTION 2735. To be amended to read as follows:

Sec. 2735. If the encroachment is not denied, but is not removed for five days after the notice is complete, the road commissioner must remove the same at the expense of the owner, occupant, or person controlling the same, and recover his costs and expenses, together with the penalty provided for in the preceding section.

NOTE.—“Road overseer” changed to “road commissioner,” and the word “may” to “must.”

SECTION 2737. To be amended to read as follows:

Sec. 2737. Whoever obstructs or injures any highway, or diverts any watercourse thereon, or drains water from his land upon any highway, to the injury thereof, by means of ditches or dams, is liable to a penalty of ten dollars for each day such obstruction or injury remains, and must be punished as provided in section five hundred and eighty-eight of the Penal Code. Any person, persons, or corporation who shall be storing or distributing water for any purpose, and shall permit the water to overflow, or saturate by seepage, any highway, to the injury thereof, shall, upon notification of the road commissioner of the district where such overflow or seepage occurs, repair the damages occasioned by such overflow or seepage; and should such repair not be made

within ten days by such person, persons, or corporation, said road commissioner may make such repairs and recover the expense thereof from such person, persons, or corporation, in an action at law. All persons excavating irrigation, mining, or drainage ditches across public highways are required to permanently bridge said ditches at such crossings, and upon neglect to do so, the road commissioner for that road district shall construct the same, and recover the cost of constructing, of such persons, by action, as provided in this section. And whoever willfully injures any public bridge is hereby declared to be guilty of a misdemeanor, and is also liable for actual damages for such injury, to be recovered by the county in a civil action; *provided*, that every person who knowingly allows the carcass of any dead animal (which animal belongs to him at the time of its death) to be put or to remain within one hundred feet of any street, alley, public highway, or road in common use, and every person who puts the carcass of any dead animal within one hundred feet of any street, alley, highway, or road in common use, or who shall deposit on any highway any refuse or waste, is guilty of a misdemeanor.

NOTE.—The amendment consists in limiting the time within which certain repairs shall be made to ten days, requiring ditches or cuts across highways to be permanently bridged, and in substituting the words "road commissioner" for "road overseer." The word "shall" was also changed to "may," to conform to the decision of the court in *County of Fresno vs. Canal Co.*, 68 Cal. 359.

SECTIONS 2949, 2950, 2952, 2953, 2954, 2955, 2956, 2957, 2958, 2959, 2960, 2961, 2962, 2963, 2964, 2965, 2966, 2968, and 2969, relating to immigration, to be repealed.

SECTION 2993. To be amended to read as follows:

Sec. 2993. The secretary of the State Board of Health is ex officio vaccine agent. He must obtain a supply of the genuine vaccine matter, and preserve the same for the use and benefit of the citizens of the State.

NOTE.—Amended by consolidating the offices of secretary of State Board of Health and State vaccine agent.

CHAPTER X.

HOURS OF LABOR.

SECTION 3246. A new section to be added to read as follows:

Regulating hours of labor.

Sec. 3246. Any contractor who employs any laborer to work, or permits any laborer to work, more than eight hours in any twenty-four hours of time, upon any work done, performed, or contracted to be done or performed, for the state, or for any county, city and county, town, or city, therein, shall not maintain an action in the courts of this State

upon the contract under which the work was performed, nor any action in anywise relating to, or affecting, such contract. It shall be the duty of all officers, state, county, and municipal, to refuse to pay any contractor for work performed or materials furnished, if he shall have been guilty of a violation of any of the provisions of this section. All mechanics, workingmen, and laborers employed by any contractor, as aforesaid, shall receive not less than the prevailing rate of wages in the respective trades or callings in which such mechanics, workingmen, and laborers are employed in said locality. None but citizens of the United States, or persons who have declared their intention to become such, shall be employed by any such contractor upon any of the contracts hereinabove mentioned.

SECTION 3247. A new section to be added to read as follows:

Preference to be given to California products.

Sec. 3247. Any person, committee, board, officer, or any other person, charged with the purchase, or permitted or authorized to purchase, supplies, goods, wares, merchandise, manufactures, or produce, for the use of the State, or of any of its institutions or officers, or for the use of any county or consolidated city and county, or city, or town, shall always, price, fitness, and quality equal, prefer such supplies, goods, wares, merchandise, manufactures, or produce as has been grown, manufactured, or produced in this State, and shall next prefer such as has been partially so manufactured, grown, or produced in this State. All state, county, city and county, city, or town officers, all boards, commissions, or other persons, charged with advertising for any such supplies, shall state in their advertisement that such preferences will be made. In any such advertisement no bid shall be asked for any article of a specific brand or mark when such requirement would prevent proper competition on the part of dealers in other articles of equal value, utility, or merit.

SECTION 3248. A new section to be added to read as follows:

Convict-made goods to be branded or labeled.

Sec. 3248. All goods, wares, and merchandise made by convict labor in any penitentiary, prison, reformatory, or other establishment in which convict labor is employed, shall, before being sold, or exposed for sale, be branded, labeled, or marked as hereinafter provided, and shall not be exposed for sale in any place within this State without such brand, label, or mark. The brand, label, or mark hereby required shall contain at the head or top thereof the words "convict made," followed by the year and name of the penitentiary, prison, reformatory, or other establishment in which it was made, in plain English lettering, of the style and size known as great primer roman condensed capitals. The brand or

mark shall, in all cases where the nature of an article will permit, be placed upon the same, and only where such branding or marking is impossible shall a label be used, and where a label is used it shall be in the form of a paper tag, which shall be attached by wire to each article, where the nature of the article will permit, and placed securely upon the box, crate, or other covering in which such goods, wares, or merchandise may be packed, shipped, or exposed for sale. Said brand, mark, or label shall be placed upon the outside of and upon the most conspicuous part of the finished article and its box, crate, or covering. It shall be the duty of the Commissioner of the Bureau of Labor Statistics, and the District Attorneys of the several counties, to enforce the provisions of this section, and of section — of the Penal Code, and when, upon complaint or otherwise, the Commissioner of the Bureau of Labor Statistics has reason to believe that this section is being violated, he shall advise the District Attorney of the county wherein such alleged violation has occurred of that fact, giving the information in support of his conclusions, and such District Attorney shall at once institute the proper legal proceedings to compel compliance with this section. It shall be lawful for any person, persons, or corporation to furnish evidence as to the violations upon the part of any person, persons, or corporation, and upon the conviction of any such person, persons, or corporation one half of the fine provided for by section — of the Penal Code, which shall be secured, shall be paid, upon certificate by the District Attorney, to the Commissioner of the Bureau of Labor Statistics, who shall use such money in investigating and securing information in regard to the violation of this section and in paying the expenses of such conviction.

SECTION 3249. A new section to be added to read as follows:

License not to discriminate against California products.

Sec. 3249. No license shall hereafter be imposed upon any person soliciting orders for the sale of any article or articles manufactured or produced in this State which, under the constitution or laws of the United States, cannot be legally imposed upon a person or persons soliciting orders in this State for the sale of a similar article in a like manner, made or produced in any of the states of the United States. This section shall, in no manner, affect the right or power of counties or municipalities to impose licenses upon persons conducting regular places of business therein.

We recommend that all of Chapter XV, Title VII, being inoperative under the Constitution (Sec. 12, Art. XI), be replaced by the following state license tax:

CHAPTER XV.

LICENSES.

ARTICLE I.

CORPORATION LICENSE TAX.

Sec. 3350. Upon all corporations doing business for profit in this State, and having a capital stock of not more than one hundred thousand dollars, other than corporations organized under the laws of this State exclusively for the purpose of distributing water to their stockholders and members, and corporations organized under the laws of this State exclusively for the purpose of mining in this State, there is assessed an annual license tax of one hundred dollars, to be paid to the Treasurer of the county in which such corporation or association has its office or principal place of business; such license to be paid on or before the first day of June of each and every year, and if not so paid upon the first day of June in any year, all acts of such corporations so delinquent shall be null and of no effect, and such corporations shall not further transact business in this State.

Sec. 3351. Upon all corporations doing business for profit in this State, and having a capital stock of more than one hundred thousand dollars, other than corporations organized under the laws of this State exclusively for the purpose of distributing water to their stockholders and members, and corporations organized under the laws of this State exclusively for the purpose of mining in this State, there is assessed an annual license tax of two hundred dollars, to be paid to the Treasurer of the county in which such corporation or association has its office or principal place of business; such license to be paid on or before the first day of June of each and every year, and if not so paid upon the first day of June in any year, all acts of such corporations so delinquent shall be null and of no effect, and such corporations shall not further transact business in this State.

ARTICLE II.

STATE EXCISE LICENSE TAX.

Sec. 3360. No person, firm, co-partnership, association, or corporation shall, after the first day of May, eighteen hundred and ninety-seven, sell or give away, or engage in the traffic in, spirituous, malt, or vinous liquor, to be drunk on the premises where sold or otherwise dispensed, without first having paid to the State of California, as herein

provided, an excise license tax of three hundred dollars, and procured therefor an excise license tax certificate and posted the same in a conspicuous place on the premises or place where such spirituous, malt, or vinous liquor is thereby permitted to be sold or otherwise dispensed for the time mentioned in such certificate; *provided*, that no state excise license tax shall be required to permit the giving away of malt or vinous liquors upon the premises where the same are manufactured. No excise license tax certificate, issued or procured hereunder, shall be authority for any person to sell or otherwise dispense, or to engage in the traffic in, spirituous, malt, or vinous liquor in more than one place of business.

Sec. 3361. No license shall hereafter be granted or permission given by any county, city and county, city, or town, or the authority thereof, to any person, partnership, association, or corporation, to sell or traffic in spirituous, malt, or vinous liquors, to be drunk on the premises where sold, unless the petition or application for such license or permit be accompanied by a certificate of the County Treasurer of the county in which is located the place where such sale or traffic in spirituous, malt, or vinous liquors is to be conducted, certifying that the applicant or petitioner is a holder of a state excise license tax certificate good for a period not shorter than that for which a license is sought from such local authority, or has deposited in such county treasury the sum of three hundred dollars for the purpose of paying the state excise license tax herein provided, and that said deposit was accompanied by a state excise license tax certificate issued by the Auditor of the county, which is to be delivered to the applicant or petitioner for such license upon the issuing of the license petitioned for by such local authority. Every license granted or permission given by any county, city and county, city, or town, in violation of the provisions of this article, shall be absolutely void.

Sec. 3362. When the application or petition for a license to sell or traffic in spirituous, malt, or vinous liquors, to be drunk upon the premises where sold, has been acted upon by the authorities of a county, city and county, city, or town, authorized to grant such license, the clerk of such authorities shall certify the action taken by the authorities on such application for a license, to the Treasurer and Auditor of the county, and should the action of such local authorities be a refusal to grant any license to such applicant for the sale or traffic in such liquors to be drunk on the premises where sold or otherwise dispensed, any sum deposited by such applicant with the County Treasurer, in anticipation of the granting of a license to him by such local authorities, shall be returned to him. If the action of such local authorities be to grant such license to such applicant, then the County Treasurer shall retain the sum deposited and deliver to the applicant the state excise license

tax certificate deposited with him as provided by the next preceding section.

Sec. 3363. Any person, partnership, association, or corporation, required to take out a state license as in this chapter provided, who fails, neglects, or refuses to take out such license, or who carries on or attempts to carry on any business for the carrying on of which a license is required by this chapter, without first procuring such license, and every person, officer, director, or employé of any person, partnership, association, or corporation who carries on or attempts to carry on the business of such person, partnership, association, or corporation, without such license having been first taken out as authority therefor, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not less than five hundred dollars, or by imprisonment in the county jail not less than six months, or by both such fine and imprisonment. Any judgment that a defendant pay a fine, may also direct that he be imprisoned until the fine be satisfied, in the proportion of one day's imprisonment for every two dollars of the fine.

Sec. 3364. The Treasurer of each county shall, on the first day of August in each year, pay to the State Treasurer, at Sacramento, through the State Controller, as by law provided in other cases, all moneys collected up to that date in payment of corporation license tax, and of state excise license tax, and the State Controller and the State Treasurer are hereby required to receipt therefor to the County Treasurer so paying the amount held by him.

Sec. 3365. All moneys received by the County Treasurer as corporation license tax and as state excise license tax, shall be held by such Treasurer in a separate fund, to the credit of the State of California, and such fund shall be known as "The State License Tax Fund." He shall keep a ledger account showing all certificates for payment of license tax issued to him by the Auditor, all certificates returned by him for any reason, and the amount of moneys received as corporation license tax and as state excise license tax, and he shall certify to the State Controller, on the first day of each month, the amount of such license tax held by him.

Sec. 3366. It is hereby made the duty of each County Auditor to affix his official seal to, and sign, all certificates of payment of corporation tax, or of state excise license tax, and deliver them to the County Treasurer when requested so to do, and to charge him therewith in a book to be kept for such purpose. He shall also keep in his office the stubs of all certificates by him delivered to the County Treasurer, and his account shall show all state excise license tax certificates delivered by him and all such certificates returned to him.

Sec. 3367. The State Controller shall have printed suitable certificates of payment of the state excise license and corporation license tax, and shall furnish such certificates to the Auditors of the several counties of the State for the purposes herein provided. Such certificates shall be made in book form, with a stub attached, which stub shall be firmly bound in said book, and shall show in detail all facts stated in the certificate, particularly the county in which the tax is paid, the person, partnership, association, or corporation to whom the license is issued, the place where the business is located for which such license is granted, described by street number or other accurate description. It is hereby made the duty of every County Auditor in this State, to receive such excise license tax and corporation license tax books, and to fill out such license tax certificates when informed by the County Treasurer of his county that the sum required to pay such license tax has been deposited with him for the said license tax. And when such license tax certificate is issued by the Auditor to the Treasurer, the Treasurer shall receipt for the same upon the stub from which such license tax certificate was taken. It is made the duty of every County Treasurer to receive the excise license tax herein provided for, and to notify the Auditor that the sum necessary to pay the license tax has been deposited with him; to accept from said Auditor the state excise license tax and corporation license tax certificates, and receipt for the same to the Auditor, on the stub; and when an excise license tax certificate is to be returned for failure of the local authorities to grant the license petitioned for, the Treasurer shall indorse upon the face thereof, "Returned for failure of the authorities to grant license," sign his name thereto, and return the same so indorsed and signed to the County Auditor. The County Auditor shall certify to the State Controller, upon the first day of each month, all corporation license tax and all excise license tax certificates issued by him during the preceding month, and a statement of all excise license tax certificates that have been returned to him by the Treasurer on account of the action of the local authorities in refusing to grant the license. All license tax certificates, when issued by the Controller, shall be properly numbered, and charged to the County Auditor to whom they are sent, and such Auditor shall receipt for the same. The Controller shall open a proper account with each County Auditor in the State, wherein shall be shown all state excise license tax and corporation tax certificates issued, the amounts collected therefor, to whom each is issued, and the location of the place of business where the traffic in liquor is carried on, described by street number or other accurate description, and the principal place of business of the corporation paying such license.

NOTE.—It is the intention to provide a part of the revenue of the State from the licensing of liquor without diminishing or affecting the rights of counties, cities or towns to control that matter, as provided by Section 11, Article XI, of the Con-

stitution, and without entering into the domain of local government as indicated by the general tendency of our laws. It is, however, a question that has been brought home to the taxpayers of the country that very much of the burden of taxes required for the maintenance of State prisons, asylums, and industrial schools, and for the care of paupers, indigents, and inebriates, is the result of the liquor traffic, and that the entire license imposed upon the traffic never finds its way into the channels tending to relieve the taxpayer at large, but is applied to the maintenance of streets, local improvements, and the expenses of the government of cities and towns without in any way tending to relieve the burden imposed upon outlying taxable property by reason of the existence of this traffic. While not intending to harass the traffic where it is the intention or wish of the authorities to grant licenses for its sale and distribution, and with no desire to enter the local domain for the purpose of legislating for or against the traffic, it is sought to provide that, if the license is to be granted, some portion of the amount paid shall be applied directly under the law to the discharge of the burden incurred by reason of such licensing.

TITLE VIII.

PROPERTY OF THE STATE.

SECTION 3547. To be amended to read as follows:

Sec. 3547. Upon receipt of the delinquent list the District Attorney must add thereto a notice that if the amount due is not paid in fifty days after the date thereof, he will commence suit to foreclose the interest of the purchasers in the lands, and must publish the list and notice once a week for five weeks, being five publications, in a daily or weekly newspaper published in the county, or if there is no newspaper published therein then he must post copies of the same in at least five public places in the county. He shall also file a copy of such notice with the County Treasurer, and shall notify him of the amount of costs incurred, and from time to time, as fast as additional costs are incurred, he shall notify him of the character and amount thereof.

NOTE.—The amendment provides for notice to the Treasurer of all costs incurred, which will enable that official to include the same in any settlement he may make with the delinquent.

SECTION 3549. To be amended to read as follows:

Sec. 3549. Service of the summons must be made upon the defendant personally where such service can be had. Where personal service cannot be had the District Attorney must apply to the court, as provided for in section four hundred and twelve of the Code of Civil Procedure, for an order for the publication of such summons, and after such order has been obtained, the District Attorney must make service thereof by publication by publishing the same in some newspaper published in the county once a week for five weeks, being five publications, or if no newspaper is published in the county, then by posting one copy of the sum-

mions for four weeks at the court-house door of the county, and two copies in public places in the township where the land is situated.

NOTE.—The amendment makes definite the publication necessary and provides directly for the order of publication of summons necessary to the validity of the judgment, which order in a large number of cases heretofore brought has not been applied for or obtained.

SECTION 3553. To be amended to read as follows:

Sec. 3553. The fees and costs for the publications, proceedings, and services provided for herein shall be as follows:

1. For printing delinquent list and notice, where such list contains not more than ten names, the publisher shall be paid five dollars per name; where such list contains more than ten and less than twenty names, he shall be paid four dollars per name; and where the notice contains twenty or more names, he shall be paid three dollars per name;

2. For publication of each summons, twenty dollars;

3. The County Recorder shall be paid twenty-five cents for filing each judgment, and twenty-five cents for issuing his certificate of such filing;

4. The District Attorney shall receive ten dollars for each suit brought.

If the District Attorney cannot procure the publication in this article provided for, for the sum above provided for, he shall report the same to the State Board of Examiners, who are authorized to make a contract for such publication, and pay therefor such sum as may be necessary.

NOTE.—By establishing definite fees, the exorbitant charges heretofore made in many instances are sought to be avoided.

SECTION 3554. To be amended to read as follows:

Sec. 3554. In all cases where the title of purchasers of land from the State has been foreclosed, or attempted to be foreclosed, or that may hereafter be foreclosed, for non-payment of interest, said purchasers, their executors, administrators, or successors in interest, shall have twelve months after said foreclosures are or have been completed, within which to redeem such land by paying to the County Treasurer, for the benefit of the fund, or parties entitled thereto, all delinquent interest, and interest that would have accrued in case there would have been no foreclosure, also, all costs of foreclosure, to be paid to the fund, or the parties who paid said costs. When said payments are made, and indorsed on the certificate of purchase, specifying the amount paid as interest and for costs, and duly reported to the register of the land office, the annulments shall be canceled by said officer, and the rights of the purchasers shall thereby be fully restored.

NOTE.—Section 3554, as it now exists, is dropped, and the Act of March 7, 1881 (Stats. 1881, page 65), is substituted.

SECTION 3555. To be amended to read as follows:

Sec. 3555. Upon the rendition of a judgment foreclosing the interest of the purchaser, or of his assigns, in the land, and annulling the certificate of purchase, judgment for costs must be entered against the defendant; but if execution issued thereon is returned not satisfied, the judgment and costs must be paid from the principal or interest paid by the purchaser, and if such payments so made by him are not sufficient in amount to pay such costs, the balance thereof shall be paid from the general fund of the State.

NOTE.—The fund for the payment of foreclosure proceedings is increased from the amount paid at the time of the original entry, to include all sums paid by the delinquent. In case this sum should prove insufficient the creditor is then given recourse to the general fund, thus insuring the payment of his claim.

SECTION 3557. A new section to be added to read as follows:

Failure to pay works forfeiture.

Sec. 3557. Any person who hereafter enters or purchases any of the public lands of this State, or who contracts for the purchase thereof, or who has a certificate of purchase therefor issued to him, who shall, for the period of three years, fail to make the payments thereon required by law, shall forfeit all his right, title, and interest in and to said land, and shall forfeit all sums paid on account of the principal or interest of the purchase price thereof. At the expiration of three years from the time when any such sum became due, and which shall not have been paid, the register of the land office shall cancel the entry of such person upon his books, and thereafter such land shall be subject to reëntry and sale.

NOTE.—This section is designed to dispense with the present vexatious and expensive method of foreclosing the claims of delinquent purchasers.

TITLE IX.

REVENUE.

CHAPTER I.

PROPERTY LIABLE TO TAXATION.

SECTION 3608. To be amended to read as follows:

Sec. 3608. Each person, firm, or corporation owning or having in his or its possession any shares of capital stock of any corporation, association, or joint-stock company, shall be assessed therefor. If the corporation, association, or joint-stock company has its principal place of business in this State, the assessable value of each share of its stock shall be ascertained by taking from the value of its entire capital stock

the value of all the property assessed to such corporation, association, or joint-stock company, and dividing the remainder by the entire number of shares into which its capital stock is divided. The owner or holder of the capital stock in corporations, associations, or joint-stock companies, organized and existing under the laws of this State or of the United States, and whose principal place of business is situated within this State, shall be assessed for such capital stock in the county, city and county, city, or town where such principal place of business in this State is located, and not elsewhere. The owner or holder of capital stock in corporations, associations, or joint-stock companies, organized under the laws of this State, and whose principal place of business is not within this State, must be individually assessed for such stock in the county in which said owner or holder of stock resides. The owner of shares of stock, to be entitled to the deduction provided for in this section, must produce to the County Assessor a certificate of the assessment of the property of the corporation, association, or joint-stock company, when such property is situated in a county other than that in which the stock is assessable.

NOTE.—This section should be repealed, if not amended as herein suggested. The statement made by the first sentence is a species of subtle reasoning which, while it is true, has no relation to and cannot be made the basis for a law, as declared in the second sentence of this section. It is true that to assess all the property of a corporation, and also its shares of stock, at their market value, without deducting from the value of such shares the value of the corporate property assessed, would be double taxation, but it does not follow because that is so that no assessment should be made of the shares of stock of corporations, if they have any value over and above that given to them by the tangible property owned by the corporation. It has been uniformly held in the case of water companies which supply cities that the property of such companies subject to taxation includes their real estate, personal property, and their franchises, and that the true measure of the value of the franchises is the market value of all of the stock of the corporation, less the value of its real estate and all other property except the franchise. Therefore, the true method of assessment is to assess all tangible property of a corporation to such corporation, and the value of the franchise, which may be fluctuating, dependent upon the earnings of the corporation, to the capital stock as a whole.

Corporations may be assessed either by assessing their corporate property, including their franchises, or by assessing their capital stock, or by assessing a part of their corporate property, and the remainder of the taxable value to be assessed against them upon their capital stock. Since such capital stock has no value, except as the representative, in whole or in part, of such corporate property, the taxation of the whole of such stock and property at the same time would be double taxation; therefore, either a part of one and a part of the other may be assessed and taxed at the same time, provided that the total valuation assessed and taxed against such corporation and the holders of its capital stock shall in all cases equal the value of its capital stock, including its corporate and other franchises. This section, as now in the Code, is in violation of the Constitution (Section 1, Article XIII), which provides that stock is property. It is also in violation of the spirit of our laws, for by it is prevented the payment of their just taxes by national banks; the statutes of the United States requiring as follows: "Nothing therein shall prevent the assessment of shares of stock to their owners under State law," subject to two restrictions: (1) "Taxation shall not be greater

than is assessed upon the money capital in the hands of individual citizens of the State, and shares of stock of non-residents of the State shall be taxed in the city and town where the bank is situated, but not elsewhere." The United States laws provide that the real property of national banks shall be assessed to the corporation, and stock to the stockholders, under the restrictions above mentioned.

In the amendment presented we have sought to overcome all obstacles apparent in the present revenue laws to the equitable assessment of all corporations and of the property of individuals.

The present Section 3608, as it now stands, and the deduction of credits, or solvent credits, make it impossible to assess national banks. Of the deduction of credits we speak in Section 3641. We present an amendment to Section 3608, which we think provides fully, as far as the same may be done under our present Constitution, for the assessment of the property and stock of corporations, including national banks.

SECTION 3609. A new section to be added to read as follows:

Sec. 3609. Every association or corporation organized under the laws of any other State, or of any country foreign to the United States, and doing business in this State, as a bank, banking association, or banking corporation, shall be assessed and taxed as are like associations or corporations existing under the laws of this State.

SECTION 3610. A new section to be added to read as follows:

Sec. 3610. Every association or corporation, other than banking associations or banking corporations, existing under the laws of other States, or of countries foreign to the United States, doing business in this State, shall be assessed on the full number of shares of the capital stock of such association or corporation. For the purpose of assessment and taxation in this State, the value of the capital stock of such association or corporation shall be determined by the gross receipts or earnings of such association or corporation on the business transacted in this State for the year next preceding the first Monday in March, the basis of value being the value of a franchise held by a like association or corporation existing under the laws of this State, and making like earnings. The tax levied on the corporation's capital stock, on the assessment herein provided, shall be paid by such corporation as personal property taxes are paid in the county where the principal place of business of such association or corporation is located.

CHAPTER II.

DEFINITIONS OF TERMS.

Sec. 3617. Whenever the terms mentioned in this section are employed in this Code, they are employed in the sense hereinafter affixed to them, to wit:

First—The term "property" includes moneys, credits, bonds, stocks, dues, franchises, and all other matters and things, real, personal, and mixed, capable of private ownership.

Second—The term “real estate” includes:

1. The possession of, claim to, ownership of, or right to the possession of, land;
2. All mines, minerals, and quarries in and under the land;
3. All timber belonging to individuals, partnerships, associations, or corporations, growing or being on the lands of the United States, and all rights and privileges appertaining thereto, and interests therein;
4. A mortgage, deed of trust, contract, or other obligation by which a debt is secured, wherein land is pledged for the payment or discharge thereof, shall, for the purposes of assessment and taxation, be deemed and treated as an interest in the land so pledged;
5. Improvements.

Third—The term “improvements” includes:

1. All buildings, fences, and other structures, except telegraph and telephone lines, erected upon, built, made, or placed in, or affixed to, the land;
2. All fruit trees, nut-bearing trees, and ornamental trees and vines not of natural growth; but fruit and nut-bearing trees, while under four years of age from the time of planting in orchard form, and grape-vines, while under three years of age from the time of planting in vineyard form, are exempt from taxation.

Fourth—The term “personal property” includes everything which is capable of private ownership, not included within the meaning of the terms “real estate” and “improvements.”

Fifth—The terms “value,” “actual value,” “full value,” and “full cash value” mean the amount at which property would be taken in payment of a just debt due from a solvent debtor.

Sixth—The term “credits” means all debts not secured by mortgage, deed of trust, or other lien on real or personal property, due or owing to the person, firm, corporation, or association assessed.

Seventh—The term “debts” means all liabilities of whatsoever kind, which are unsecured by deed of trust, mortgage, or other lien on real or personal property, due or owing to any person, firm, corporation, or association, and subject to be assessed in this State as credits to any person, firm, corporation, or association; but credits, claims, rights, and demands due, owing, or accruing to any person, for or on account of money deposited with savings and loan institutions or corporations, shall, for the purposes of taxation, be deemed and treated as a part of, and as represented in, the property of such institution or corporation, and shall, when the property of such institution or corporation is assessed and taxed, be deemed thereby assessed and taxed, and, to avoid double taxation, shall not be assessed or taxed to such person owning or claiming them.

Eighth—A ferry-boat is a vessel traversing across any of the waters of the State, between two points, employed for the transfer of passengers or freight, authorized or permitted by law so to do, and also any boat employed as a part of the system of a railroad for the transfer of passengers or freight, and plying between two points.

NOTES.—Under "Second—2" two subjects, mines and timber, were treated, and it has accordingly been again subdivided.

Under "Third—2" young fruit trees and vines are made exempt from taxation in the new section, instead of being treated as not being improvements, as in the old section. They are, in fact, improvements, but are exempted from taxation by Section 12¾, Article XIII, Constitution.

Under "Fourth," "capable" is substituted for "subject," to make the language conform exactly to Section 1, Article XIII, Constitution.

Under "Fifth," other equivalents of value and full cash value, which are used in the Constitution and statutes, are inserted.

Under "Sixth," material changes are made. It is "credits," not merely "solvent credits," that are taxable by Section 1, Article XIII, Constitution.

A corresponding change is made in the section requiring the assessed to make a statement or return to the Assessor. The purpose of this change is to leave no discretion to the assessed as to what credits he will return. If he be instructed to return solvent credits, a discretion is left to him as to what credits are solvent; but if the requirement of the statute be that he shall return all credits, then his duty is made simple, and purely ministerial, and he can hardly make a mistake. The value of these credits will depend upon the degree of their solvency, and will vary, according to their character, from the amount represented on their face to nothing. But the Assessor, and not the assessed, is made by law the judge of the assessable value; that is to say, of the degree of solvency of credits.

Under "Seventh," the definition of "debts" has been changed so as to make it the exact opposite of "credits." The rule allowing a deduction of debts due bona fide residents of this State from credits is abrogated in this revision, and, therefore, the only purpose of considering debts in making assessment under the theory here adopted, is to secure a check upon the credits returned. The credits returned by all the creditors ought to equal the debts returned by all the debtors.

In the old text it was stated, the deposits in savings banks should be deemed an interest in the property of the bank. On this theory they ought to be taxed. This phraseology has been so changed as to cause them to be deemed a part of the property of the bank, and thus taxable as such only.

"Eighth" is a part of Section 3643 in the old text, brought here among the other definitions. The language of this definition as it stood in Section 3643 contained so many limiting terms as to render it subject to be almost entirely construed away. These have been omitted so as to leave it general, and of more practical value.

In the following arrangement it is sought to put each subject under the proper head with reference to the subject treated, without regard to the position now held as to number of section:

CHAPTER III.

Article I. Assessment of property.

Article II. Duties of Assessor.

Article III. Powers of Assessor.

ARTICLE I.

ASSESSMENT OF PROPERTY.

SECTION 3620. New section.

Sec. 3620. All taxable property shall be assessed at its full cash value.

NOTE.—Taken from Section 3627.

SECTION 3621. New section.

Sec. 3621. Every mortgage, deed of trust, contract, or other obligation by which a debt is secured, shall, for the purposes of assessment and taxation, be deemed, and shall be, assessed at its full face value; *provided*, that reduction therefrom may be made of any payment or payments made thereon by the debtor prior to the first Monday in March, at twelve o'clock meridian, if notice of such payment, in writing, shall have been filed with the Assessor, by the mortgagee, or other person owning such security, prior to the assessment thereof.

NOTE.—Taken from Section 3627—constructed to provide that no reduction from face value shall be made except on notice of payment.

Sec. 3622. All lawful money of the United States has value equal to, and shall be assessed at, the actual amount thereof.

Sec. 3623. Land, and the improvements thereon, shall be separately assessed. Cultivated and uncultivated land, of the same quality, and similarly situated, shall be assessed at the same value. Land shall be assessed in parcels, or subdivisions, not exceeding six hundred and forty acres each; lands which have been sectionized by the United States government shall be assessed, by accurate description, by sections, or fractions of sections; and lands which have not been so sectionized, or which do not conform to the boundaries of regular government subdivisions, shall be assessed in tracts containing not more than six hundred and forty acres, and shall be described by accurate description by metes and bounds. Lands sold by the State, for which no patent has been issued, shall be assessed the same as other lands, but the owner shall be entitled to a reduction from such assessed valuation in the amount due the State as principal upon the purchase price. A mortgage, deed of trust, contract, or other obligation by which a debt is secured, shall, for the purposes of assessment and taxation, be deemed and treated as an interest in the property affected thereby. Except as

to railroads, and other quasi-public corporations, in case of debts so secured, the value of the property affected by such mortgage, deed of trust, contract, or other obligation, less the value of such security, shall be assessed and taxed to the owner of the property, and the value of such security shall be assessed and taxed to the owner thereof, in the county, city, or district in which the property affected thereby is situated. The taxes so levied shall be a lien upon the property and security, and may be paid by either party to such security; if paid by the owner of the security, the tax so levied upon the property affected thereby shall become a part of the debt so secured. If the owner of the property shall pay the tax so levied on such security, it shall constitute a payment thereon, and, to the extent of such payment, a full discharge thereof. If any such security or indebtedness shall be paid by any such debtor or debtors after assessment, and before the tax thereon shall have been levied and become payable, the amount of such levy may likewise be retained by such debtor or debtors, and shall be computed according to the tax levy for the preceding year; unless the new levy shall already have been made; in which case such amount shall be computed and retained according to such new levy. And every contract by which a debtor is obliged to pay any tax or assessment on money loaned, or on any mortgage, deed of trust, or other lien, shall, as to any interest specified therein, and as to such tax or assessment, be null and void.

Sec. 3624. All personal property consigned for sale to any person within this State, from any place outside of this State, must be assessed and taxed in like manner as other property.

Sec. 3625. Where ferries connect more than one county, the wharves, storehouses, and all stationary property belonging to or connected with such ferries, must be assessed, and the taxes paid, in the county where located. The value of the franchise, and watercraft, and of all toll bridges connecting more than one county, must be assessed in equal proportions in the counties connected by such ferries, or toll bridges. All vessels, except ferry-boats, which may be registered, of every class which are by law required to be registered, must be assessed, and the taxes thereon paid, only in the county, or city and county, where the same are registered, enrolled, or licensed. Vessels registered, licensed, or enrolled out of, and plying in whole or in part in the waters of this State, must be assessed in this State, in the county, or city and county, in which the owner or part owner thereof resides; and all boats and small craft not required to be registered must be assessed in the county, or city and county, in which the owner or part owner thereof resides; *provided*, that all vessels, boats, and craft required to be assessed in the county, or city and county, where the owner or part owner thereof

resides, shall be assessed in each such county, or city and county, to the extent, but only to the extent, of the value of the interest of such owner or part owner therein.

Sec. 3626. The right to collect compensation for all water appropriated or held by any person, co-partnership, or corporation, for sale, rental, or distribution, for the use of which compensation is collected of any county, city and county, city, or town, or the inhabitants thereof, shall be assessed as a franchise. Water ditches constructed for mining, manufacturing, or irrigating purposes must be assessed and described the same as real estate, by the Assessor of the county, at a rate per mile for such portion of such property as lies within his county.

Sec. 3627. All telegraph and telephone lines shall be described in the same manner as real estate is described, but assessed as personal property, by the Assessor of the county, at a rate per mile for such portion of such property as lies within his county. The box, transmitters, and appliances of all telephone lines installed in buildings, or places of any kind, for which compensation is collected, shall be assessed as hereinafter provided. The right to collect toll by wagon and turnpike roads shall be assessed as a franchise at a rate per mile for such portion of such property as lies in the county.

Sec. 3628. The franchise, roadway, roadbed, rails, and rolling-stock of all railroads operated in more than one county in this State, shall be assessed by the State Board of Equalization, as hereinafter provided for. Other franchises, if granted by the authorities of a county, city, or city and county, must be assessed in the county, city, or city and county within which they were granted; if granted by any other authority, they must be assessed in the county in which the corporations, firms, or persons owning or holding them have their principal place of business. All corporations doing business in this State, both those organized under the laws of this State, and those organized under the laws of other states and of foreign countries, shall pay to the Treasurer of the county in which its principal office or place of business is located, such annual state license tax as may be required by law. A state license tax for the sale and traffic in spirituous and malt liquors shall be paid by all persons, firms, or corporations before engaging in such sale or traffic, in the county in which they intend to carry on such sale and traffic.

SECTION 3629. To be repealed.

NOTE.—Its provisions as amended to meet this theory are found in Section 3641 hereof

SECTION 3630. The text is new.

Sec. 3630. Each county and each city and county of the State shall form an assessment district, and shall be divided into subdivisions, as follows:

First—Supervisor districts, which shall be subdivided into road districts;

Second—Said road districts, which shall be subdivided into school districts;

Third—Said school districts, which shall be subdivided into districts of valuation of real estate;

Fourth—Said districts of valuation of real estate.

Maps shall be prepared by the County Surveyor of each county, under direction of the County Assessor of such county, as follows:

First—An outline map of the county, showing, in outlines in different colors, the supervisor districts, road districts, school districts, and districts of valuation of real estate;

Second—An outline map of each supervisor district, showing, in outlines in different colors, each road district, school district, and district of valuation of real estate;

Third—An outline map of each road district, showing, in outlines in different colors, each school district, and district of valuation of real estate;

Fourth—An outline map of each school district, showing, in different colors, each district of valuation of real estate;

Fifth—A map of each district of valuation of real estate, showing all property held by different owners, cultivated and uncultivated, that is of the same quality or general character, and which shall be assessed at the same value.

Land lying in more than one of the foregoing districts, and divided by the boundaries of such districts, owned by the same owner, shall be so divided, described, and assessed as to make the assessment complete as to each district. Each map shall show by number, or other designation, the county and district, or districts, delineated thereon, as follows:

County of.....
 Supervisor District No.
Road District (or Road District No. ..)
School District.
 District of Valuation of Real Estate No.

The foregoing map shall be made in duplicate, and one thereof shall be filed in the office of the County Assessor, and the other in the office of the State Board of Equalization, at, or before, the completion of the assessment.

In a county in which is situated an incorporated city, or town, a map

of such city, or town, shall be made under direction of the County Assessor of such county, by the city engineer, or surveyor of the city or town, to be delineated as follows:

First—An outline map showing the boundaries of the city, or town, and all its subdivisions into blocks, lots, streets, and other ways and places:

Second—A map showing the outline, in different colors, of each "block" or "tract" of district of valuation of real estate, if such district contains more than one block or tract.

Districts of valuation may be subdivided as convenience may suggest, showing the subdivision of property, city or town blocks or lots; *provided*, that all maps of a district of valuation shall be kept together, and so numbered, or designated, as to show the valuation district, school, road, and supervisor district, or ward, town, or city.

The county and district maps hereby required shall be paid for from the county general fund of each county, and the bills therefor shall be presented to, and passed upon and allowed by, the Board of Supervisors of such county, in like manner as other county charges. The maps of cities and towns hereby required shall be paid for out of the general funds of such cities and towns, and the bills therefor shall be presented, passed upon, and allowed in like manner as are other claims and charges against the said general funds of such cities and towns presented, passed upon, and allowed.

The State Board of Equalization shall provide the forms for such maps and plat books, and shall require such maps and plat books to be uniform throughout the State, to be indexed to show owners' names, to give ample data for accurate description for all purposes of assessment and taxation, show improvements, and assessed valuation of each separate holding, and of each several quality of land therein, and the acreage, and the kinds of trees and vines thereon.

Sec. 3631. All property must be assessed in the county, or city and county, city, town, township, and district where the same is situated, in the name of the person, firm, association, or corporation who owns it, or in whose name such property stands upon the records of the county.

Sec. 3632. When a person is assessed as agent, trustee, bailee, guardian, executor, or administrator, his representative designation must be added to his name, and the assessment entered on a separate line from his individual assessment.

Sec. 3633. The undistributed or unpartitioned property of deceased persons may be assessed to the heirs, guardians, executors, or administrators; and a payment of taxes made by either binds all parties in interest for their equal proportions.

Sec. 3634. Money and property in litigation, in possession of a County Treasurer, of a court, County Clerk, or receiver, must be assessed to such treasurer, clerk, receiver, or the judge of such court, and the taxes thereon to be paid under direction of the court.

Sec. 3635. Any property discovered by the Assessor to have escaped assessment for the last preceding year, if such property is in the ownership or under the control of the same person who owned or controlled it for such preceding year, may be assessed at double its value.

Sec. 3636. Any property willfully concealed, removed, transferred, or misrepresented by the owner, or agent thereof, to evade taxation, upon discovery, must be assessed at not exceeding ten times its value, and the assessment so made must not be reduced by the Board of Supervisors.

Sec. 3637. Lands once described on the assessment book need not be described a second time; but any person claiming the same, and desiring to be assessed therefor, may have his name inserted with that of the person to whom such land is assessed.

NOTE.—The foregoing sections, 3631 to 3637, are subjects in the present law placed here for order.

ARTICLE II.

DUTIES OF ASSESSORS.

Sec. 3640. The Assessor, or his deputies, must, before the first Monday in June of each year, in each of the counties, and cities and counties, visit each house and place of business in their districts, and enroll in a field enrollment book, in such form as may be required by the State Board of Equalization, all male persons residing in said county over eighteen years of age and under sixty years of age on the first Monday in March of that year. On such field enrollment book shall be stated whether the person enrolled is liable to a state poll tax, a road poll tax, or military duty; give the number of the poll tax receipt, and the amount paid, if poll taxes are collected; where his residence is, post office address, giving street and number, if any; occupation; by whom employed; whether the owner of real estate; the State or country of nativity; whether naturalized or not, and any reason that may be given why poll tax was not paid. From such enrollment books the military roll, as required by section eighteen hundred and ninety-seven, and the roll of poll-tax payers, required by section thirty-eight hundred and fifty-seven, shall be made. Personal property unsecured by real estate must be assessed and taxes collected at the time of enrollment of persons for poll taxes; receipts must be issued for personal property tax from a stub-book, having the stubs numbered the same as the receipt; such

stub-books shall have a line for the name of the person assessed, the amount of the assessment, the rate collected, and lines for the items assessed for collection, the total amount, the date of collection, and the name of the deputy making the collection. Such blank personal-tax receipt books shall be furnished for such purpose by the Auditor, and all unused receipts must be turned in by the Assessor with his settlement for personal property taxes on the first Monday in August of each year. The Assessor, or his deputy, shall also note on the assessment statement, against each tract of land or lot assessed, the condition of surface of such tract or lot of land assessed, the condition of surface of each tract, using the words level, rolling, broken, hilly, or rocky; also, the quality of soil, using the words fruit, grain, timber, pasture, or rocks; also, whether it is wet, dry, semi-moist, or has water-rights; also, the kind and value of improvements located on each tract or lot.

Sec. 3641. The County Assessor must, between the first Monday in March and the first Monday in July of each year, ascertain the names of all taxable inhabitants, and all the property in his county subject to taxation, except such as is required to be assessed by the State Board of Equalization, and must assess such property to the persons by whom it was owned or claimed, or in whose possession or control it was, at twelve o'clock meridian on the first Monday in March next preceding; but no mistake in the name of the owner, or supposed owner, of real property shall render the assessment thereof invalid. He must exact from each person a statement, under oath, setting forth specifically all the real and personal property owned by such person, or in his possession, or under his control, at twelve o'clock meridian on the first Monday in March. Such statement shall be in writing, showing separately:

1. All property belonging to, claimed by, or in the possession or under the control or management of such person;

2. All property belonging to, claimed by, or in the possession or under the control or management of any firm of which such person is a member;

3. All property belonging to, claimed by, or in the possession or under the control or management of any corporation of which such person is president, secretary, cashier, or managing agent;

4. The county in which such property is situated, or in which it is liable to taxation, and (if liable to taxation in the county in which the statement is made) also the city, town, township, school district, road district, or other revenue districts in which it is situated;

5. An accurate description of all lands, in parcels or subdivisions not exceeding six hundred and forty acres each, describing the same by sections and subdivisions of sections in case of all tracts of land which have been sectionized by the United States government; improvements, per-

sonal property, including all vessels, steamers, and other watercraft; and all taxable state, county, city, or other municipal or public bonds, and the taxable bonds of any person, firm, or corporation, and all deposits of money, gold-dust, or other valuables, and the names of the persons with whom such deposits are made, and the places in which they may be found; all mortgages, deeds of trust, contracts, and other obligations by which a debt is secured, and the property in the county affected thereby;

6. All credits, unsecured by deed of trust, mortgage, or other lien on real or personal property, due or owing to such person, or any firm of which he is a member, or due or owing to any corporation of which he is president, secretary, cashier, or managing agent; all credits shall be itemized so as to show the face amount of each thereof, and the name and place of residence of the debtor owing the same. All debts unsecured by trust deed, mortgage, or other lien on real or personal property, due or owing by the person, firm, or corporation making such statement, to any person, firm, association, or corporation subject to be assessed therefor in this State as credits; all such debts shall be itemized so as to show the face amount thereof, and the name and place of residence of the creditor to whom the same are due.

All firms, persons, associations, or corporations, conducting or operating any works or lines for the purpose of supplying any county, city and county, city, or town, or the inhabitants thereof, with gas, water, electric light, heat, or power, telegraph or telephone lines, or street-car lines, or other business, under a franchise granted by such county, city and county, city, or town, or by the State, shall, in addition to the statement of its property, file with the Assessor, on or before the first day of April of each year, a statement of its gross receipts for the year next preceding the first Monday in March; also, the amount of its operating expenses; also, a copy or copies of any and all statements and showings made by such corporation to any court, board, council, commission, or public body since the first Monday of March in the year next preceding, as the basis for the fixing by such court, board, council, commission, or other public body, of rates, freights, fares, or other charges by or compensation to such corporation, firm, association, or person; also, the amount of expenditures for betterments, extensions, and permanent improvements; the amount expended for repairs and maintenance; the amount of bonded indebtedness; if a corporation, the amount of dividends declared and paid, and whether in cash or stock, or other form; the amount of capital stock; the amount of capital stock paid up, if any, or the amount of capital stock subscribed, and the amount assessed thereon and paid; if a person or firm, the amount of money invested, net income, or profit. The statement made by a corporation shall be made and verified by the president and secretary thereof, if residents of the county, or if the principal office of the

corporation be located in the county. If they do not reside in the county, or if the principal office be not in the county, the statement shall be made and verified by the managing agent, or other person in possession or control of the property. Whenever one member of a firm has made a statement showing the property of the firm, another member of the firm need not include such property in the statement made by him. But his statement must show the name of the person who made the statement in which such property is included. The Assessor may fill out the statement herein required to be made, at the time he presents it, or he may deliver it to the person and require him, within an appointed time, to return the same to him, properly filled out. If any person, after demand made by the Assessor, neglects or refuses to give, under oath, the statement herein provided for, or to comply with the other requirements of this title, the Assessor must note the refusal on the assessment book, opposite his name, and must make an estimate of the value of the property of such person; and the value so fixed by the Assessor must not be reduced by the Board of Supervisors; but nothing herein shall be construed as abridging the power of the Assessor to compel the making of the statement herein required, as provided in section thirty-six hundred and sixty. The Board of Supervisors of each county shall furnish the Assessor with "blank forms" of the statements herein provided for, to which shall be affixed the following affidavit, to be made and subscribed by the person making the statement:

"I, ———, do swear that I am a resident of the county of (naming it); that the above list contains a full and correct statement of all property subject to taxation which I, or any firm of which I am a member, or any corporation, association, or company of which I am president, cashier, secretary, or managing agent, owned, claimed, possessed, or controlled, at twelve o'clock meridian on the first Monday in March last, and which is not already assessed this year, and that I have not, in any manner whatsoever, transferred or disposed of any property, or placed any property out of said county, or my possession, for the purpose of avoiding any assessment upon the same, or of making this statement; and that the debts therein stated as owing by me are the only debts owing by me to any person, firm, association, or corporation, subject to assessment thereon, in this State, as credits."

The affidavit to a statement on behalf of a firm, or corporation, must state the principal place of business of the firm, or corporation, and in other respects must conform substantially to the preceding form.

NOTE.—From Subdivision 6 of Section 3641 is omitted the provision for deducting debts due bona fide residents of this State from solvent credits. The reason for this omission is that the provision is a discrimination in favor of moneyed capital, other than that invested in national banks, and makes it impossible, with the provision in existence, to assess national banks in this State. This is made so by Section 5219, Revised Statutes U. S., as construed in the case of *Miller vs. Heil-*

bron, 58 Cal. 133, and *The Bank of Commerce vs. New York City*, 2 Blatchford, 620. The United States Statutes provide that national banks may be assessed under State law in the manner following: The real estate of the association must be assessed to the association, the shares of stock in the association must be assessed to the owner or holder of such shares. The Legislature may direct the manner and place of taxing all the shares of national banking associations within the State, subject to two restrictions: that the taxation shall not be at any greater rate than is assessed upon other moneyed capital in the hands of individual citizens of such State, and that the shares of any national banking association owned by non-residents shall be taxed where the bank is located, and not elsewhere. The change made in Section 3608, with the omissions from Subdivision 6, Section 3641, will permit the assessment of national banks as other moneyed capital is assessed in this State.

Sec. 3642. When the Assessor has not received from the owner of a tract of land the statement required by section thirty-six hundred and forty-one, or when such statement does not sufficiently describe a tract of land to enable the Assessor to assess the same as required by law, and the owner or his agent, or in case they cannot be found, or are unknown, the person in possession thereof, neglects, for ten days after demand by the Assessor, to furnish said Assessor with such description, the Assessor shall cite such owner, or agent, or person in possession, to appear before the Superior Court of the county in which such land is situated, within five days after service of such citation; and the Superior Court shall, upon the day named in such citation, to the exclusion of all other business, proceed to hear the return and answer of the said owner, or agent, or person in possession, to the said citation, and if the court shall find that the land has not been surveyed or divided into subdivisions of six hundred and forty acres or less, so that each part, or parcel, may be accurately described by metes and bounds, and assessed as required by law, then the court shall, by order duly entered in open court, direct the County Surveyor to make a survey and define the boundaries and location of said land by parcels or subdivisions, not exceeding six hundred and forty acres each, and deliver the same to the County Assessor. The expense of making such survey and description by the County Surveyor shall be a lien upon the land, and shall, when approved by the said Superior Court, be certified by said court to the Tax Collector of the county where the land is situated, and be added to the taxes upon said land, and be collected as other taxes are collected.

Sec. 3643. All property shall be assessed in the true name of the owner thereof, if his true name be known to the Assessor. If the name of the owner of any property appears of record in the office of the Recorder of the county where the property is situated, the name so appearing of record shall be deemed to be the true name of such owner. If the name of the owner of the property does not appear of record as aforesaid, and cannot, after diligent inquiry, be ascertained by the Assessor, then, but not otherwise, such property must be assessed to

unknown owners. Whenever any property, or any interest therein, stands upon the records of any county in the name of more persons than one, or whenever any person, other than the person in whose name the property stands upon the records of the county, or is being assessed, claims an interest therein, and desires to be assessed therefor, such property need not be described more than once upon the assessment book, but the names of all persons appearing of record, as aforesaid, and the names of all claimants to said land who desire to be assessed therefor, as aforesaid, must be inserted in the assessment of such property as owners thereof and must be separately indexed. In no case shall property be assessed to joint or other partial owners thereof, by a name in the form of a firm, or partnership name, except when such property is actually owned, or appears upon the records of the county as being owned, by a partnership, or firm; and in all cases, other than partnership ownership, property shall be assessed to the persons owning the same, or any interest therein, or desiring to be assessed therefor, by their individual names.

Sec. 3644. If the owner or claimant of any property, not listed by another person, is absent or unknown, the Assessor must make an estimate of the value of such property.

Sec. 3645. The Assessor, as soon as he receives the statement of any taxable property situated in another county, must make a copy of such statement for each county in which the same is situated or assessable, and transmit the same, by mail or express, to the Assessor of the proper county, who must assess the same as other taxable property therein.

SECTIONS 3646, 3647, 3648, and 3649 to be repealed.

NOTE.—The substance of these sections is included in preceding sections, treating of the same or like subjects.

Sec. 3650. The Assessor must prepare an assessment book, with appropriate headings, as directed by the State Board of Equalization, in which must be listed all property within the county, under the appropriate head:

1. The name of the person to whom the property is assessed;
2. Land, by township, range, section, or fractional section, not exceeding six hundred and forty acres in any one tract; and when such land is not a congressional division, or subdivision, then by metes and bounds, or other accurate description sufficient to identify it, giving an estimate of the number of acres (not exceeding in any tract six hundred and forty acres), locality, and the improvements thereon. When any tract of land is situated in two or more school, road, or other revenue districts of the county, the part in each such revenue district

must be separately assessed. The improvements shall be assessed against the particular section, tract, or lot of land upon which they are located;

3. City and town lots, naming the city or town, and the number of the lot and block, according to the system of numbering on the official map of such city or town, which must be referred to by the book and page of its official record, and the improvements thereon;

4. All personal property, showing the number, kind, amount, and quality; but a failure to enumerate in detail such personal property shall not invalidate the assessment;

5. The cash value of real estate, other than city or town lots;

6. The cash value of improvements on such real estate;

7. The cash value of city and town lots;

8. The cash value of improvements on city and town lots;

9. The cash value of improvements on real estate assessed to persons other than the owners of the real estate;

10. The cash value of all personal property, exclusive of money;

11. The amount of money;

12. The assessment of the franchise, roadway, roadbed, rails, and rolling-stock of any railroad, as apportioned to his county by the State Board of Equalization, and also such other apportionments of such franchises, roadways, roadbeds, rails, and rolling-stock as may be made by such board, and furnished to him for the purpose of taxation in any district of his county. Taxable improvements owned by any person, firm, association, or corporation, located upon any land exempt from taxation, shall, as to the manner of assessment, be assessed as other real estate upon the assessment book. No value shall, however, be assessed against the exempt land, nor under any circumstances shall the land be charged with or become responsible for the assessment made against any taxable improvements located thereon;

13. The school, road, and other revenue districts in which each piece of property assessed is situated;

14. The total value of all property;

15. When any property, except that owned by a railroad, or other quasi-public corporation, is subject to or affected by a mortgage, deed of trust, contract, or other obligation by which a debt is secured, he must enter, in the proper column, the value of such security, and deduct the same. In entering assessments containing credits the face amount thereof must be specified, and he must enter in the proper column the value thereof, as in the case of other personal property. Each franchise must be separately entered and valued in the assessment book without combining the same with other property, or with the valuation thereof, except in the column of totals.

NOTE.—Amended to conform to requirements of the preceding sections.

Sec. 3651. All property of persons, firms, or corporations conducting or operating gas supply lines, electric light, heat, or power supply lines, water supply lines, telegraph or telephone lines, street railway lines, wharf, ferry, toll-bridge or toll-road, or other business conducted or operated under a franchise granted therefor by any county, city and county, city, or town, or of this State, shall be listed in a book or books to be designated as "Book of Assessed Franchises," in which shall be shown, under appropriate heads:

1. All real estate and property described as real estate;
2. All other property except the franchise;
3. The franchise.

It shall be shown, in the manner directed by the State Board of Equalization, or should they fail to direct the manner of showing, then by the Assessor of each county, in the "Book of Assessed Franchises":

1. The gross earnings for each year of the person, firm, or corporation conducting or operating any of the gas, electric, water, telegraph or telephone, or street railway lines, or other business operated under a franchise, as aforesaid, for a year next preceding the first Monday in March;

2. The amount of the operating expenses;
3. The amount expended for betterments, extensions, and permanent improvements;
4. The amount expended for repairs and maintenance;
5. The amount of bonded indebtedness;
6. If a corporation, the amount of dividends declared and paid, whether in cash, stock, or other form, and what;
7. The amount of capital stock;
8. The amount of capital stock paid up, if any, or the amount of capital stock subscribed, and the amount assessed thereon and paid;
9. If a firm or person, the amount of money invested;
10. The gross income, and the sources of it.

All property of corporations, other than franchises mentioned in section thirty-six hundred and fifty-one, shall be listed in a book or books designated as "Corporation Assessments." All property of each corporation shall be described under appropriate heads, following the name of the corporation assessed.

The Assessor of each county shall keep a book, or books, designated "State License Tax," in which he shall keep a record of all corporations liable to payment of corporation state license tax, and of all persons, firms, or corporations liable to payment of state excise license tax.

Sec. 3652. On or before the first Monday in July of each year, the Assessor must complete his assessment book. He and his deputies must

take and subscribe an affidavit in the assessment book, to be substantially as follows:

"I, ———, Assessor (or Deputy Assessor, as the case may be) of ——— county, do swear that between the first Monday in March and the first Monday in July, eighteen hundred and ———, I have made diligent inquiry and examination to ascertain all the property within the county (or within the subdivision thereof assessed by me, as the case may be) subject to assessment by me, and that the same has been assessed on the assessment book, equally and uniformly, according to the best of my judgment, information, and belief, at its full cash value; and that I have faithfully complied with the duties imposed on the Assessor under the revenue laws; and that I have not imposed any unjust or double assessment through malice or ill-will, or otherwise; nor allowed any one to escape a just and equal assessment through favor or reward, or otherwise."

But the failure to take or subscribe such affidavit, or any affidavit, will not, in any manner, affect the validity of the assessment.

Sec. 3653. 1. On or before the first Monday in July of each year, the Assessor must furnish each incorporated city and town within the county a complete certified copy of his assessment book, so far as such assessment book pertains to property within the limits of said incorporated cities and towns, which certified copy shall be filed with the clerk of said city or town, and shall thereupon be and become the assessment roll of such city or town.

2. The Assessor must, on the first, tenth, and twentieth days of each month, file with the clerk of each incorporated city or town within the county, a description of all personal property, the name and address, by street and number, of the owners, and assessed value thereof, whenever the tax on such property is collected by the Assessor.

3. The Assessor may charge incorporated cities and towns — cents per folio of one hundred words for each certified copy of his assessment book, and — cents per folio of one hundred words for each description of personal property.

NOTE.—The county assessment is made the assessment of the city or town, subject to the local board of equalization.

Sec. 3654. As soon as completed the assessment book, together with the map books, statements, and military roll, must be delivered by the Assessor to the clerk of the Board of Supervisors, who must immediately give notice thereof to each member of the Board of Supervisors. In the meantime, the assessment book, map books, and statements must remain in his office for the inspection of all persons interested. After the Board of Equalization has completed its labors, the map books and statements shall be returned to the County Assessor's office, and shall be kept in such office for future reference.

Sec. 3655. On the second Monday in July of each year, the Assessor of each county must transmit to the State Board of Equalization, in such form as said board shall require, a statement showing:

1. The several kinds of personal property;
2. The average and total value of each kind;
3. The number of live stock, number of bushels of grain, number of gallons of wine or liquors, number of pounds or tons of any article sold by the pound or ton;
4. When practicable, the separate value of each class of land, specifying the classes and the number of acres of each;
5. A true statement of the agricultural and industrial pursuits and products of the county, with such other statistical information as said board shall require.

NOTE.—Subdivision five is added.

SECTION 3656. To be repealed.

Sec. 3657. Every Assessor who fails to complete his assessment book, or who fails to transmit the statement mentioned in section thirty-six hundred and fifty-five, to the State Board of Equalization, forfeits the sum of one thousand dollars, to be recovered on his official bond, for the use of the county, in an action brought in the name of the people by the Attorney-General, when directed to do so by the State Board of Equalization.

The Assessor is a civil executive officer, and liable personally and on his official bond for failure or neglect of duty; and is liable personally and on his official bond for all taxes on property within the county represented by him, which is unassessed through his neglect or willful failure.

At any time between the first and twentieth days of June, in any year, any taxpayer may file with the Assessor of the county, a complaint as to the excessive valuation, or under valuation, of the property of himself or another. Such complaint shall describe the property, and state the grounds upon which the complaint is made, in ordinary and concise language. Thereupon the Assessor shall fix a day, not later than the twenty-fifth day of June following, on which to hear the evidence and render his decision on the complaint. At the time of filing the maps, assessment book, and other records of his office with the clerk of the Board of Supervisors, he shall also transmit to said clerk the complaint, together with his proceedings, and his decision thereon.

ARTICLE III.

POWERS OF COUNTY ASSESSOR.

Sec. 3660. Every Assessor shall have power:

1. To require any person found within such Assessor's respective county to make and subscribe an affidavit, giving his name and place of residence, and to make the statement required by section thirty-six hundred and forty-one of this Code;

2. To subpœna and examine any person in relation to any statement furnished to him, or which discloses property which is assessable in his respective county; and he may exercise his power in any county where the person whom he desires to examine may be found, but shall have no power to require such person to appear before him in any other county than that in which the subpœna is served upon him. In case such affidavit shall show the residence of the person making the same to be in any county other than that in which it is taken, or the statement shall disclose property in any county other than that in which it is made, the Assessor shall, in the respective case, file the affidavit or statement in his office, and transmit a copy of the same, certified by him, to the Assessor of the county in which such residence or property is therein shown to be. Every person who shall refuse to furnish the statement hereinbefore required in this chapter, or to make and subscribe such affidavit respecting his name and place of residence, or to appear and testify when requested so to do by the Assessor, as above provided, shall, on application of the Assessor to the judge of the Superior Court of the county in which the statement, affidavit, or examination is sought to be made or had, be cited to appear, within five days after service of such citation, before said judge or court, on a day and at a place named, to show cause why such statement, affidavit, or examination should not be made. After such citation shall issue and service thereof be made, all examinations shall be conducted as ordered by the court, and the testimony taken shall be filed and acted upon by the Assessor, to ascertain the extent and value of said property, and such other information as may be necessary in making the assessment thereof according to law. The application of the Assessor to the court for the order of citation shall be by affidavit, setting forth that the party or parties, to be named in the citation, refuse to make the statement required, or to make and subscribe the affidavit respecting his name and residence, or that subpœna has been served upon the party or parties, as in this section provided, and that they disobey the same and refuse to appear and testify as to the statement furnished by, or as to any property owned or claimed by, or in possession of, any person, corporation, co-partnership, or association named in said sub-

pœna, and that the information sought is required by him, in the discharge of the duties of his office as Assessor, and not otherwise. If, upon the hearing, good and sufficient cause be not shown for such refusal, the court shall order the party cited to answer such questions as may be put to him by the Assessor, or his representatives, relating to the statement made by, or the property owned or claimed by, or in possession of, any person, co-partnership, association, or corporation named in the order; and for disobedience of the order of the court, it shall punish the party for contempt. The subpœna shall require the presence of the person named therein, at a time and place specified, to testify on oath, before the Assessor of the county of ———, as to a statement made by a person, co-partnership, association, or corporation named in the subpœna, of the taxable property of such person, co-partnership, association, or corporation, or as to the property owned, or claimed by, or in the possession of such person, co-partnership, association, or corporation, and to produce the books and papers of such person, firm, association, or corporation. A witness shall be entitled to the same fees as in civil cases, to be paid from the general fund of the county on order of the Superior Court. Personal service of the subpœna shall in all cases be made. The service of the subpœna shall be made only by the Sheriff or Assessor of the county, or his deputies, who shall make the return thereon required in other cases;

3. To enter any house, building, office, or warehouse during reasonable hours, and to examine the books and papers of any person, co-partnership, association, or corporation, in the discharge of the duties of his office, as Assessor, either in person, or by deputy.

NOTE.—The foregoing sections, 3607 to 3660 inclusive, contain all of the present law relating to taxable property, definitions, assessments of property, statement of property, duties and powers of Assessor, amended to conform to the provisions of the Constitution relating to revenue and taxation. Section 1, Article XIII, of the Constitution provides that all property in the State, not exempt, etc., shall be taxed in proportion to its value, to be ascertained as provided by law, and the word property, as used in the article, is designed to include moneys, credits, bonds, stocks, dues, franchises, and all other matters and things, real, personal, and mixed, capable of private ownership, and declares that the Legislature may provide, except in cases of credits secured by mortgage or trust deed, for a deduction from credits of debts due to bona fide residents of this State. It was evidently intended that the provision to be made by the Legislature for the deduction of debts from credits should be made in a manner that would not defeat the first declaration of the section, that all property (not exempt) in the State shall be taxed in proportion to its value. And the provisions of Subdivision 6 of Section 3629 of the Political Code are that, in case of banks, the statement is not required to show the debts in detail, and that the deduction may be made from solvent credits by the banks themselves, is clearly without the spirit and intent of this section of the Constitution. It was clearly intended by the Constitution to permit the Legislature to empower an Assessor, in the exercise of the discretion necessarily permitted in determining the value, to take from the credits (not solvent credits) such debts as were assessable as credits to other persons resident of this

State; for there is no authority in the Constitution for the Legislature to provide that every citizen may become his own assessor, as he practically does under the provisions of Section 3629, which empower him to determine which credits are solvent, which debts to deduct, and, in the case of banks, to permit an aggregate reduction of all debts or liabilities of any bank from the aggregate amount that it may determine to be solvent credits. This is made more apparent by the provisions of Section 8 of Article XIII of the Constitution: "The Legislature shall require each taxpayer in this State to make and deliver to the County Assessor annually a statement, under oath, setting forth specifically all the real and personal property owned by such taxpayer or in his possession or under his control at 12 o'clock M. on the first Monday in March." Thus the statement is to be made and delivered to the County Assessor, and is to set forth the real and personal property. The word "property" includes "credits" and "stocks," and both must be made to appear in the statement delivered to the County Assessor, if they are owned or in the possession or under the control of the taxpayer making the statement.

Section 3608 practically directs that stock is not property. This is against the decisions of the Supreme Court of this State, against the general law of this State, the laws of the United States, and the decisions of the Supreme Court of the United States, and in their relation to taxation only, are stocks declared to be not property. The effect of this declaration is farther-reaching than would appear from the statement of Section 3608; for, instead of being double taxation as therein stated, it exempts from assessment and taxation many millions of dollars of property in this State and makes it impossible to assess national banks, insurance corporations, and the like.

SECTION 3663. To be repealed.

NOTE.—Its provisions are contained in Section 3626 as proposed herein.

SECTIONS 3674 and 3675. To be repealed.

NOTE.—The two foregoing sections attempt to limit the powers and duties of County Boards of Equalization as fixed by the Constitution (Section 9, Article XIII).

SECTION 3676. To be amended to read as follows:

Sec. 3676. The board may direct, at any time during its session as a board of equalization, by order entered in its minutes, on petition or otherwise, that a hearing be had to determine the true value in money of any property appearing on the assessment roll, and upon any hearing relating to such value of property, the board may subpoena such witnesses, hear and take such evidence in relation to the subject pending, as in its discretion it may deem proper.

NOTE.—The question of the equalization of property given as security for loans of money made by the University of California should have consideration. The assessed value of such loan is deducted from the value of the property securing it, resulting in the payment of no tax by such property, unless it be assessed for more than the face value of the loan. It appears from the Auditor's report from Alameda that in that county in 1895 such loans amounted to more than \$370,000, and in San Francisco to about \$570,000. Taxes on this amount of assessed value must be borne by other property.

SECTION 3692. To be amended to read as follows:

Sec. 3692. The powers and duties of the State Board of Equalization are as follows:

1. To prescribe rules for its own government and for the transaction of its business;

2. To prescribe rules and regulations, not in conflict with the constitution and laws of the State, to govern Supervisors when equalizing, and Assessors when assessing;

3. To make out, prepare, and enforce the use of all forms in relation to the assessment of property, collection of taxes, and revenue of this State;

4. To hold regular meetings at the state capitol, on the second Monday in each month, and such special meetings as the chairman may direct in any county of the State;

5. To annually assess the franchise, roadway, roadbed, rails, and rolling-stock of all railroads operated in more than one county in this State, at their actual value, on the first Monday in March, at twelve o'clock meridian, and to apportion such assessment to the counties, and cities and counties, in which such railroads are located, in proportion to the number of miles of railway laid in such counties, and cities and counties, in the manner provided for in section thirty-six hundred and sixty-four of said Code;

6. To equalize the assessment of each mortgage, deed of trust, contract, or other obligation by which a debt is secured, and which affects property situate in two or more counties, and to apportion the assessment thereof to each of such counties;

7. To transmit to the Assessor of each county, or city and county, its apportionment of the assessments made by said board upon the franchises, roadways, roadbeds, rails, and rolling-stock of railroads, and also its apportionment of the assessments made by such board upon mortgages, deeds of trust, contracts, and other obligations by which debts are secured, in the manner provided for in section thirty-six hundred and sixty-four of said Code;

8. To meet at the state capitol on the first Monday in August, and remain in session from day to day, Sundays excepted, until the second Monday in September;

9. At such meeting to equalize the valuation of the taxable property of the several counties in this State for the purposes of taxation; and to that end, under such rules of notice to the clerk of the Board of Supervisors of the county affected thereby, as it may prescribe, to increase or lower the entire assessment roll so as to equalize the assessment of the property contained in said roll, and make the assessment conform to the true value in money of the property assessed, and to fix the rate of State taxation, and to do the things provided in section thirty-six hundred and ninety-three of said Code; *provided*, that no board of equalization shall raise any mortgage, deed of trust, contract,

or other obligation by which a debt is secured, money, or solvent credits, above its face value;

10. To visit, as a board, or by the individual members thereof, whenever deemed necessary, the several counties of the State, for the purpose of inspecting the property and learning the value thereof; and any order made or resolution adopted, or other official act performed by said board and duly entered on its minutes, shall in every respect have the same effect as though done at the office of said board in Sacramento;

11. To call before it, or any member thereof, on such visit, any officers of the county, and to require them to produce any public records in their custody;

12. To issue subpoenas for the attendance of witnesses or the production of books before the board, or any member thereof; which subpoenas must be signed by a member of the board, and may be served by any person;

13. To appoint a clerk, prescribe and enforce his duties. The clerk shall hold his office during the pleasure of the board;

14. To report to the Governor, annually, a statement showing:

First—The acreage of each county in the State that is assessed;

Second—The amount assessed per acre;

Third—The aggregate value of all town and city lots;

Fourth—The aggregate value of all real estate in the State;

Fifth—The kinds of personal property in each county and the value of each kind;

Sixth—The aggregate value of all personal property in the State;

Seventh—Any information relative to the assessment of property and the collection of revenue;

Eighth—Such further suggestions as it shall deem proper;

15. To keep a record of all its proceedings.

NOTE.—Amendment: Subdivisions 4 and 10 empower the chairman to call special meetings in any county, and give effect to the official acts at such meetings.

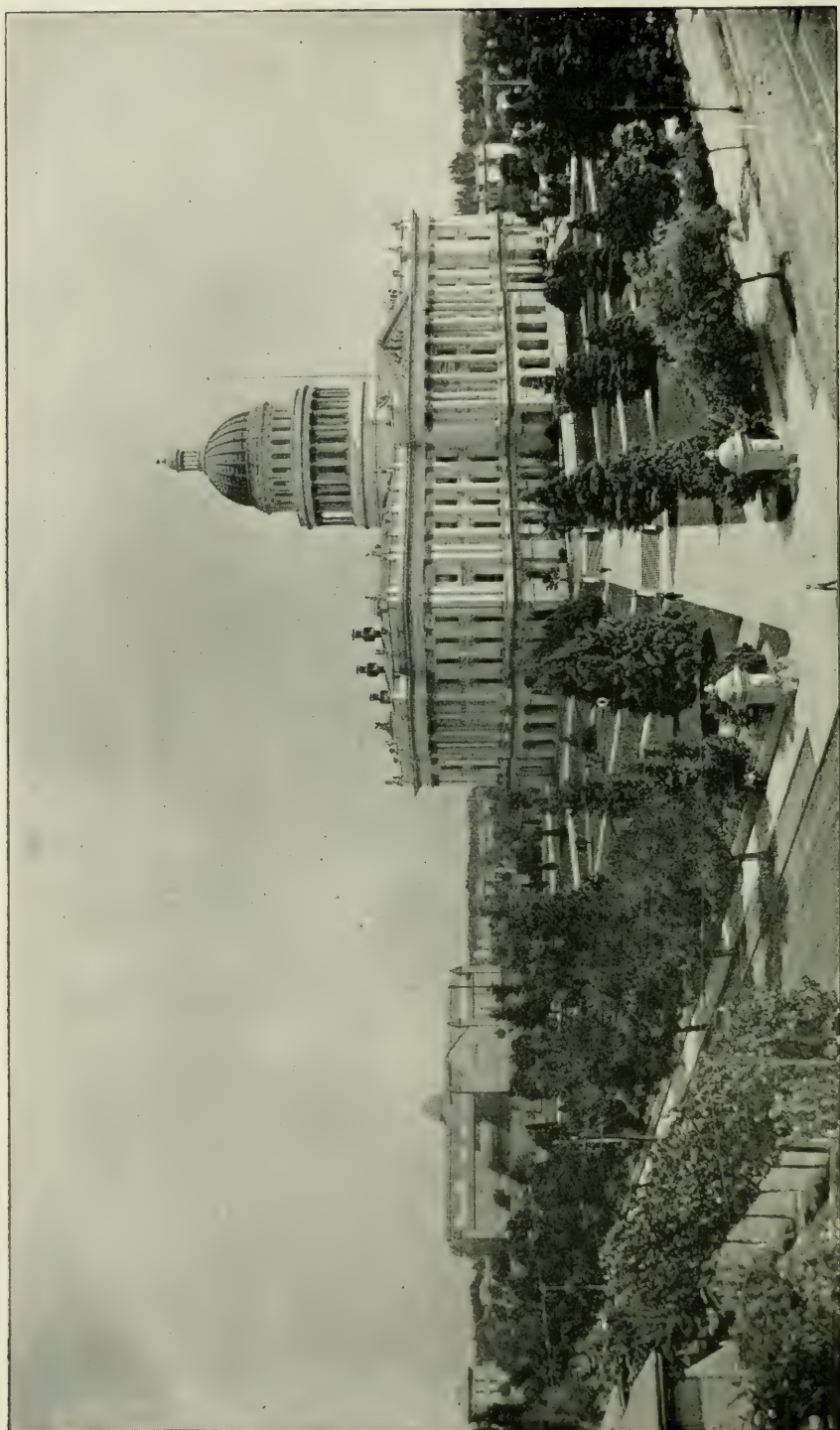
SECTION 3696. To be amended to read as follows:

Sec. 3696. On or before the first Monday in September of each year, the State Controller shall present to the State Board of Equalization a statement of all the license taxes that have been paid into the treasury of the State by the treasurers of the several counties. Between the first and second Mondays in September of each year, after having deducted from the specific amount required for state revenue, as provided by the Legislature, the amount of license taxes received, as shown by the Controller's statement, the board must determine the rate of state tax to be levied and collected upon the assessed valuation of the property of the State, which, after allowing five per cent for delinquencies in and costs of collection of taxes, must be sufficient to raise the

balance of the specific amount of state revenue directed to be raised by the Legislature. The board must immediately thereafter transmit to the Board of Supervisors and County Auditor of each county a statement of such rate, and upon its receipt the clerk of said board and County Auditor must each, in writing, notify the State Board of Equalization thereof.

Part IV, Title II, comprising sections from 4000 to 4348, inclusive, relating to the government of counties, is to be superseded by an Act now in course of preparation by this Commission, and to be entitled: "An Act to establish a uniform system of county and township governments."





STATE CAPITOL, SACRAMENTO CITY

BIENNIAL REPORT

OF THE

BUREAU OF HIGHWAYS

1895—1896.

R. C. IRVINE, MARSDEN MANSON, J. L. MAUDE,

Commissioners.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1896.

OFFICE OF BUREAU OF HIGHWAYS, }
SACRAMENTO, CAL., November 25, 1896. }

To his Excellency JAMES H. BUDD, Governor of the State of California:

SIR: We herewith transmit to you the report of the Bureau of Highways, covering the work of the Bureau since the date of its organization, April 11, 1895, under authority of the Act approved March 27, 1895.

The Bureau would especially acknowledge its indebtedness to the Attorney-General, Hon. W. F. Fitzgerald, to the State Mineralogist, Hon. J. J. Crawford, to the Honorable the State Board of Prison Directors, to other State and County officials, and to public-spirited citizens throughout the State, for hearty coöperation and assistance in the discharge of its duties.

Very respectfully,

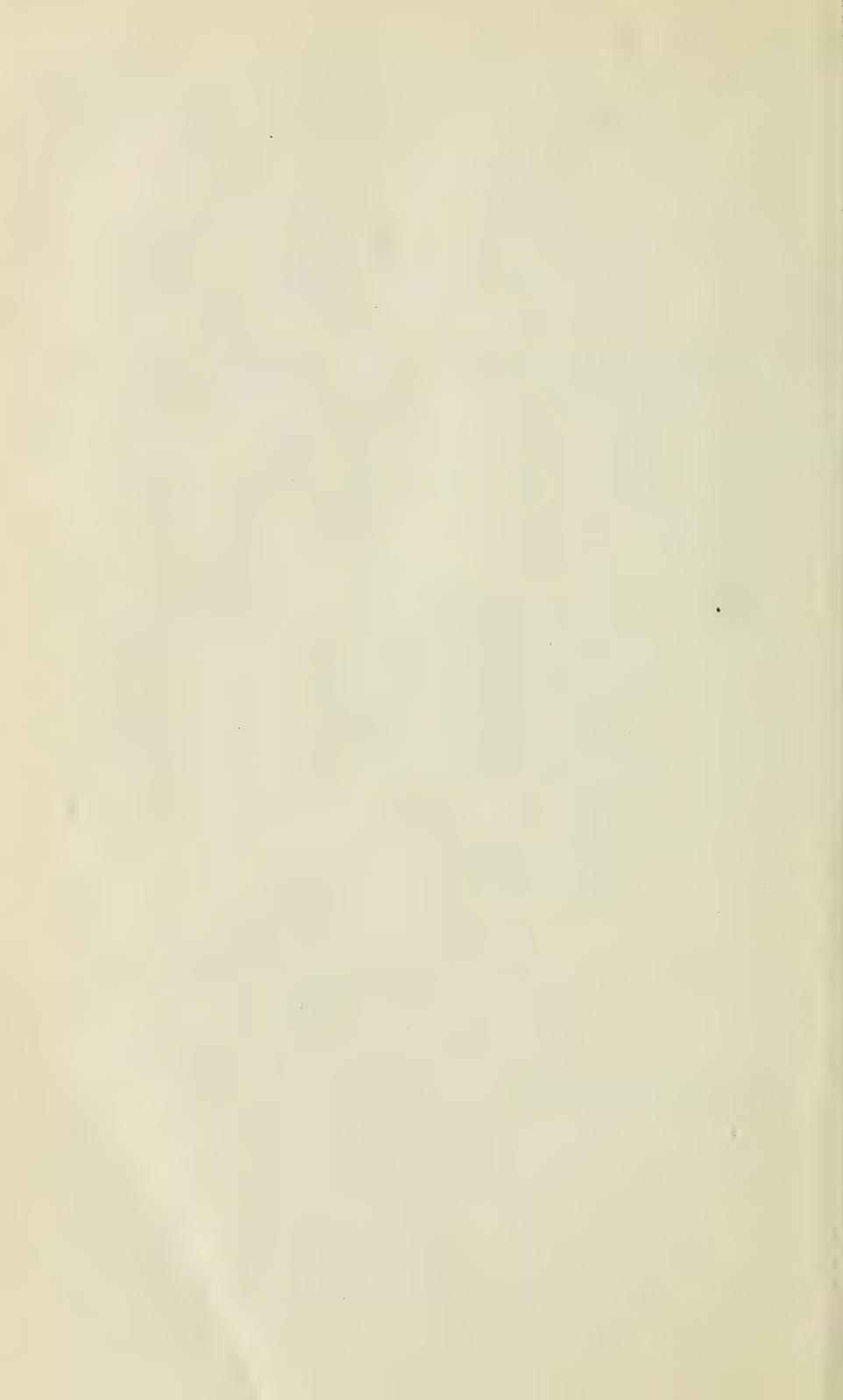
R. C. IRVINE,

MARSDEN MANSON,

J. L. MAUDE,

Commissioners.

Attest: E. MYRON WOLF, Clerk.



REPORT

OF THE

BUREAU OF HIGHWAYS.

EXPENDITURES ON ROADS.

Exclusive of the sums expended on the streets of cities, towns, and even of many villages, nearly \$2,000,000 were expended on the highways of the State of California during the fiscal year 1894-95. During the eleven years, from 1885 to 1895, such data as could be gathered from the records of the various county officials show that, not including private subscriptions of money, labor, and material, and poll tax, paid for generally in labor previous to 1893, and cost of construction of numerous bridges, payment for which was taken in part or in whole out of funds other than those set apart for highway purposes, the highway expenditures of the State reached the enormous sum of \$18,000,000.

* * * * *

NATURAL CON- DITIONS FAVOR- ABLE TO ROAD CONSTRUCTION.

The climatic, geological, and topographical conditions in the State are exceedingly favorable to road construction. The absence of severe freezing, which works so injurious an effect upon the roads of many of the Eastern States, removes one of the greatest difficulties with which road-builders generally are confronted. The geological formations throughout the entire State furnish an abundant supply of excellent road-building material. There is scarcely a county in the State that has not within its confines, or, at any rate, close at hand, an abundance of material suitable for highway construction. The topography of the State permits of the easy location of highways along the many fertile valleys and through the intervening mountain passes.

ACTUAL
CONDITION OF
ROADS.

To any one familiar with any considerable fraction of the mileage of roads in our State, it is not necessary to suggest that, with the exception of certain roads which are naturally good, the roads of California are in a deplorable condition. The absolutely systemless manner in which the majority of the roads in the State have been located and constructed, and are being maintained, as well as the extensive unnecessary mileage, are evident to any one who has traveled over the State.

* * * * *

CAUSE OF OUR
BAD ROADS.

All natural conditions, then, are favorable to road construction in California; immense sums of money have been raised for, and ostensibly expended upon, the highways of the State, and yet the mileage of good roads in California is deplorably meager. The query at once suggests itself, What is the cause of this condition of affairs? To this query there can be but one answer: *The work on our highways has been carried on without method or system; the money has been wastefully and injudiciously expended.*

* * * * *

THE REMEDY.

The remedy must be apparent. Changes in the existing laws alone will not suffice. Such defects as exist in these may be remedied, but until an economic and definite system of highway construction throughout the entire State be inaugurated, California can hope for no improvement over her present highway condition.

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CLASSIFICATION
OF ROADS.

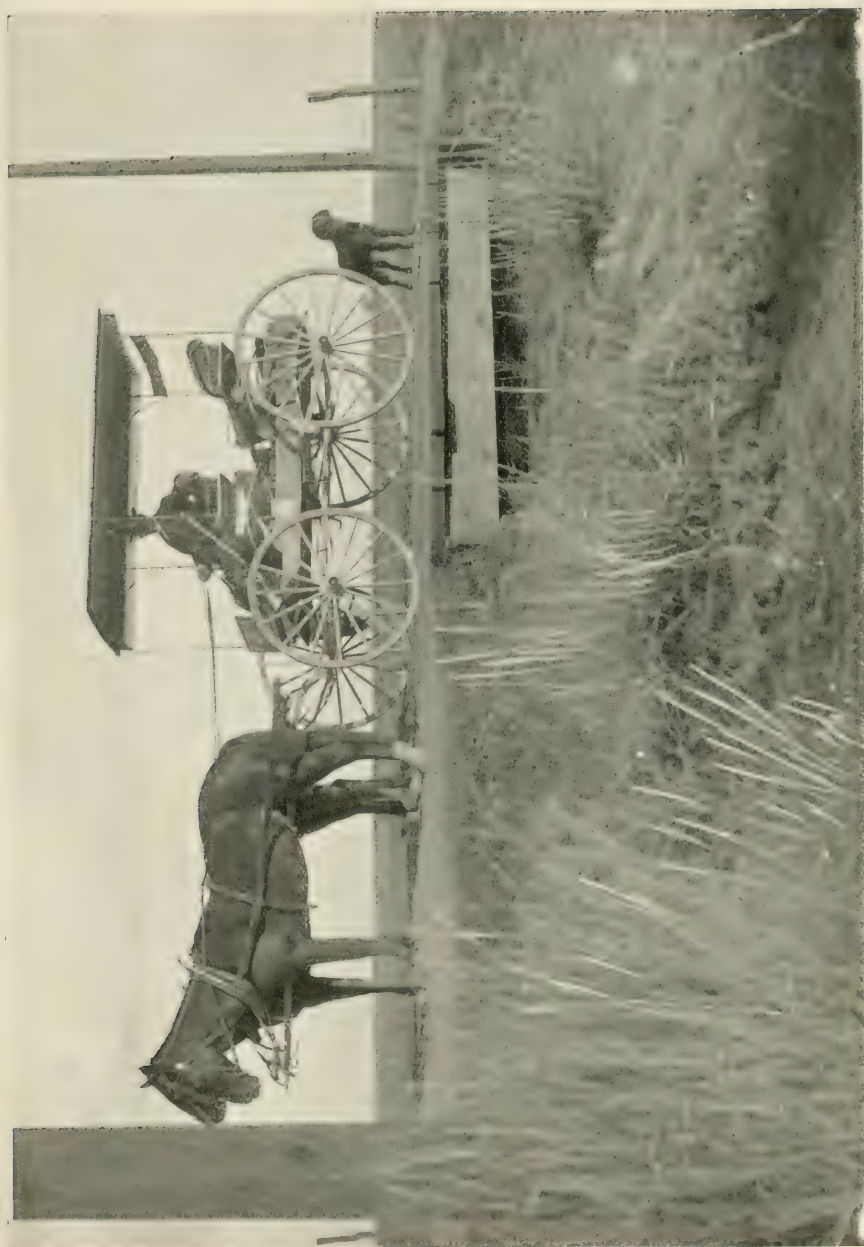
Investigation into the experiences of European countries and of the progressive Eastern States, which show conclusively that this action must be along the lines of State management of the main highways, and consideration of the conditions peculiar to California, have led to the conclusion that the following plan would best subserve the interests of our State: The division of the roads of California into three distinct classes: (1) State highways, (2) County thoroughfares, (3) District roads.

The State highways should be the great arteries of a road system from which should branch out the minor highways serving counties and districts. They should be located along those lines which the physical features of the State forever fix as the easiest lines of communication, and should be constructed and maintained by the State. The Bureau has mapped out such a system as would traverse the great belts of timber, fruit, agricultural, and mineral wealth within our State, connect all the large



2. A TYPICAL CALIFORNIA ROAD.—Showing costly construction of a "road" which is useless for travel, and the neighborhood prefers to use the spaces on either side of the "road" rather than the "road" itself.

Photograph by Bureau of Highways.]



12. TYPE OF EXPENSIVE WOODEN CULVERT.—Should be replaced with salt-glazed sewer pipe and concrete.
Photograph by Bureau of Highways.]



4. TYPE OF INCORRECT "TURNPIKING".—Showing road so rounded up that it is impossible or inconvenient to travel.
Photograph by Bureau of Highways.]

centers of population within the limits of the State, reach the county seat of every county, and tap the lines of county roads.

The county thoroughfares should comprise the most important roads in each county, as set apart and so declared by the Boards of Supervisors of the several counties. They should be the feeders of the great State highways.

The district roads should embrace all the existing roads now recognized and set apart by law, not previously enumerated, together with such roads as may be laid out to serve the needs of particular localities.

To meet the cost of the State highways a tax levy of one quarter of a mill on the dollar of the entire assessed valuation of property in the State would suffice. The reduction of the maximum amount fixed by law to be levied for road purposes by each county on the property outside of incorporated cities from 40 to 35 cents on the \$100 would offset the tax imposed. The county thoroughfares should be built by the county under the direction of the local authorities. The district roads should be constructed by the residents of the particular locality to be benefited, who should be authorized to form road districts, after the manner in which school districts are organized, and construct roads of such character as they deem necessary to suit their needs.

This classification is practically that which at all times and in all countries has been found advisable wherever road-building has been systematically undertaken, as is shown by a study of the great Peruvian and Roman systems of ancient times, and those of France, England, and other European countries, as well as those of Massachusetts, New Jersey, Connecticut, and Rhode Island, in modern times. If the plans proposed be inaugurated in our State, we should have, instead of our present utterly unsystematic methods of indiscriminate expenditure, for which comparatively little return has been made, a highway system that would place California in the rank of the progressive States of the Union and contribute more materially than any other cause to the prosperity of the State.

It was the recognition of the essentiality of good roads to prosperity and the realization of the defects of the present system, or rather lack of system, that led to the creation of the State Bureau of Highways by the last Legislature, at a time when public sentiment was unfavorable to the establishment of commissions; and likewise in other States are similar commissions being created and Good Roads Leagues are being organized, to the end that general reform of highway conditions may be brought about.

DECADENCE
OF ROAD
CONSTRUCTION.

The people have begun to appreciate that while our State, and indeed our country, have so marvelously progressed in all industrial wealth and methods, yet during the same period of growth, they have actually retrograded in road-building. This condition of highway affairs has been the result of over-development and over-construction along certain new lines and neglect of the older and equally needful roads.

The road system of our State has not only grown up during a period of general road decadence throughout the entire United States, but it has had grafted upon it a makeshift system from the start. The energy which led the pioneers to traverse a continent in the search of gold was coupled with a love of home which limited their contemplated stay in California to the shortest period possible with the acquirement of wealth. They were, therefore, content with trails, roads, and bridges which were essentially temporary or makeshift in character. Consequently, our people have learned to regard road building and maintenance as the result of temporary expedients resorted to only when forced by necessity. In some instances where wise forethought has prompted permanent work and materials, the step has been regarded as an expensive "experiment," and the officials inaugurating these improvements have been accused of extravagance.

In the early part of the century, the prosperity and development succeeding the War of the Revolution required ample and extended means of communication. The common roads of the country were supplemented by toll roads, which were built by companies on franchises granted for variable periods. These toll roads were frequently built of plank, but generally of earth and gravel. The exactions for toll, possible under these monopolies, became so burdensome that great complaint was made, and the franchises and property of the toll companies were sometimes purchased by the State and county authorities. The recent experiences in Kentucky, with the attendant outbreaks on the part of the people, are but fair examples of numerous occurrences more or less general in earlier times.

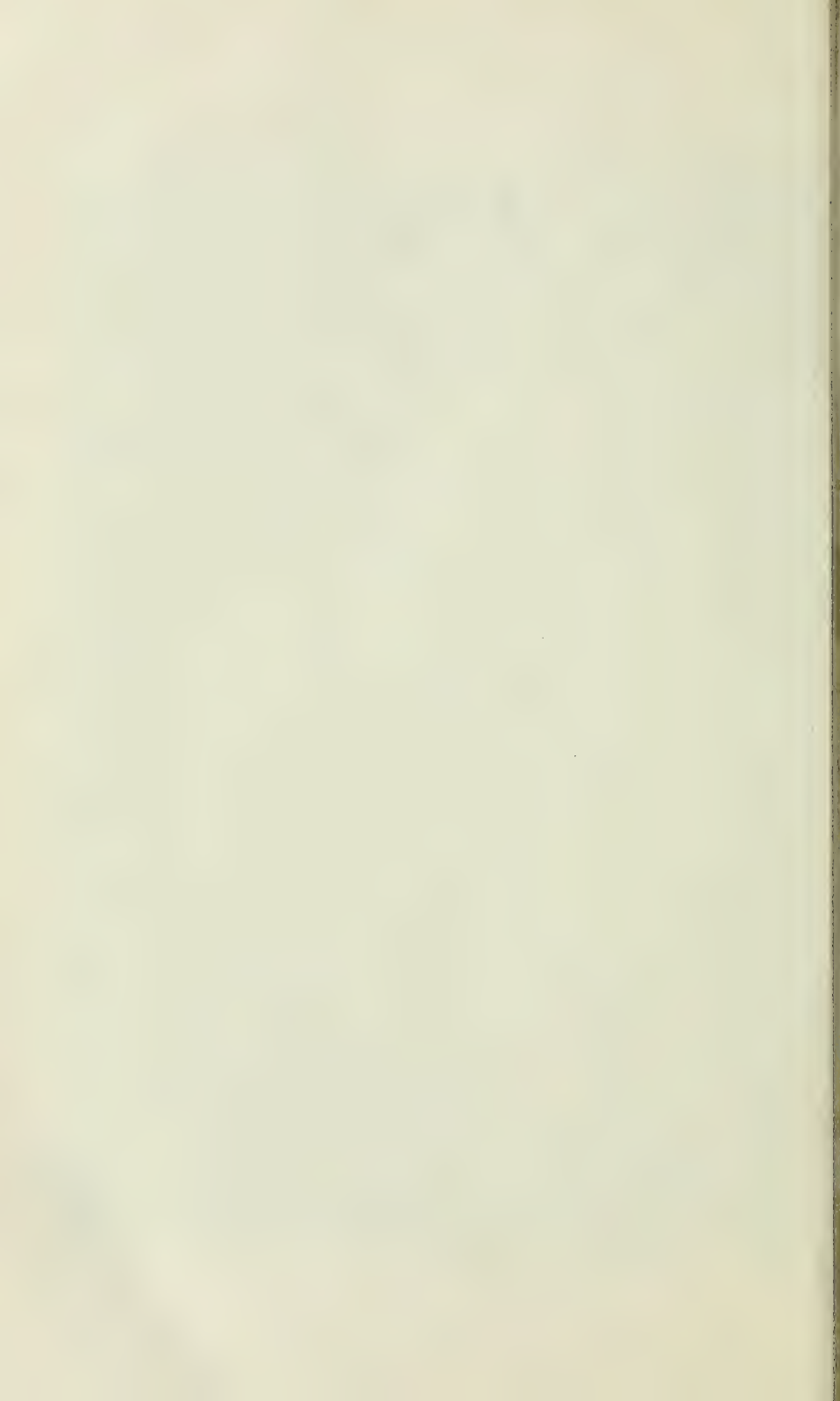
The necessities for cheap transportation became so great that the Congress of the United States, Cabinet officers, the President—in fact, almost all of the functions of the National, State, and County governments—were engaged in the study and practical application of the science of road-building. Reports of Cabinet officers, messages of the Presidents, and the views of the leading statesmen of our country, bearing on this subject, are very common in Government documents during the early decades of this century. Notable among these are:

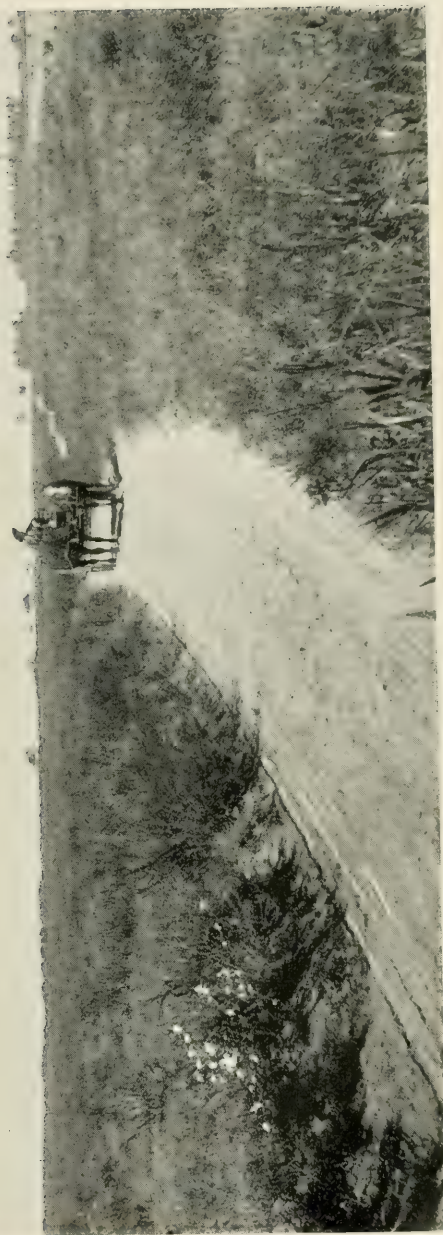
1. The Act admitting Ohio in 1802, and setting apart five per cent



11. A TYPICAL CALIFORNIA ROAD IN THE FOOTHILL REGION OF THE SIERRAS.

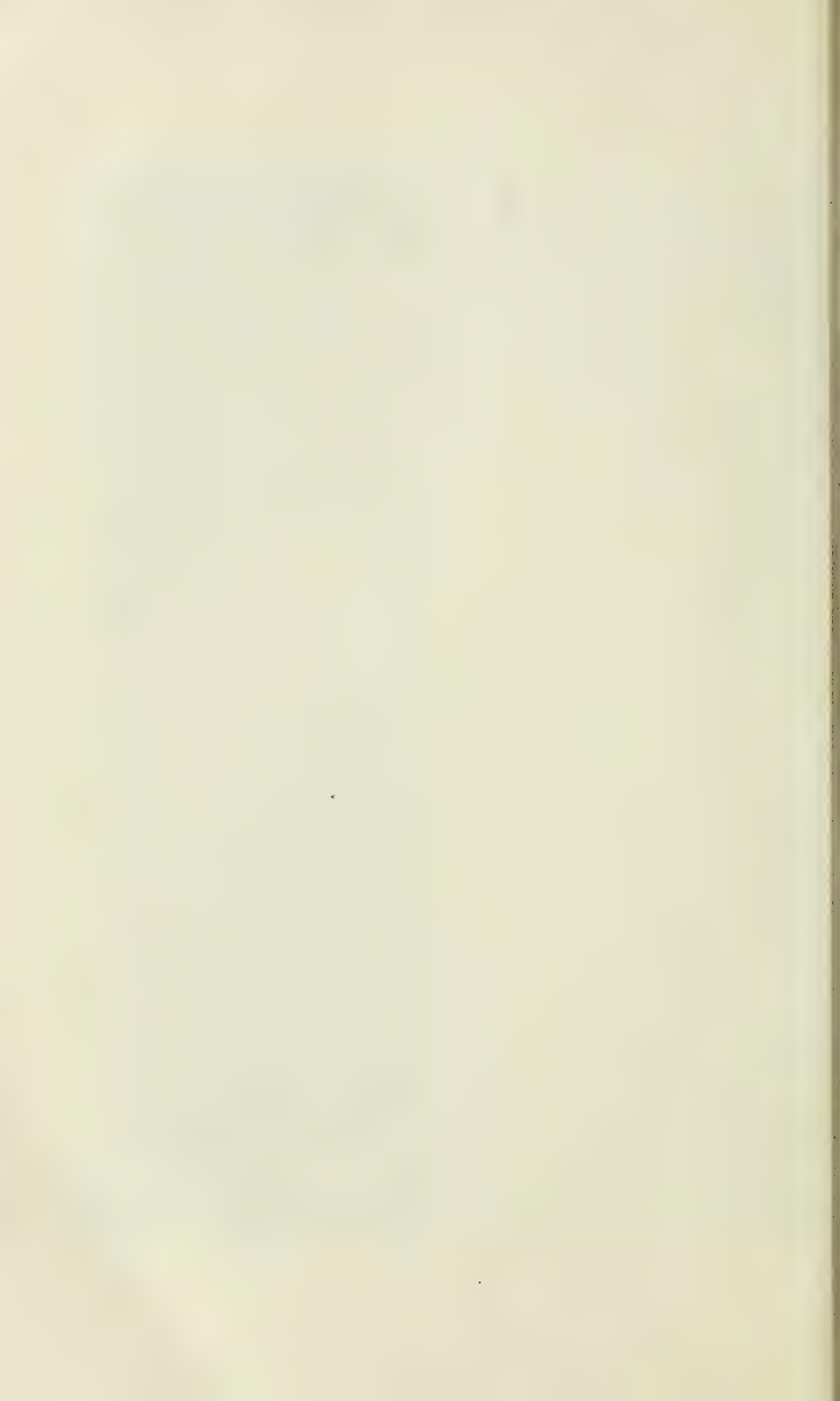
Photograph by Bureau of Highways.]





6. SHOWING CONTINUED NEGLECT AND WEAR OF ROAD BELOW THE GENERAL SURFACE—Causing the road to serve as a drainway rather than as a hard, well-drained surface.

Photograph by Bureau of Highways.]



of the sales of public lands as a road construction fund. These sales netted something over three quarters of a million dollars in a few years.

2. The bill introduced by Mr. Tracy, of Connecticut, approved in 1806 by President Jefferson. The debates on this Act show how deeply the road question interested our country.

3. The speech of Mr. Calhoun in favor of placing the bonus on all bonds sold and dividends of the national banks in a fund for the construction of roads and canals; this fund would have amounted to nearly three quarters of a million annually. This bill was, however, vetoed by President Monroe in 1817, on the ground that it was unconstitutional, even if the States gave their consent to the provisions of the law.

An extensive system of roads was projected and partly constructed by Congress. The most noted were the "National Turnpikes" in Maryland, Virginia, Pennsylvania, and Ohio, which aggregated several hundred miles and received Congressional appropriations aggregating \$7,000,000, in annual appropriations of from \$30,000 to \$500,000.

Finally, in 1834-35, an appropriation of \$300,000 was made for repairing the National roads in Pennsylvania, Maryland, and Virginia, and when repaired they were transferred to these States.

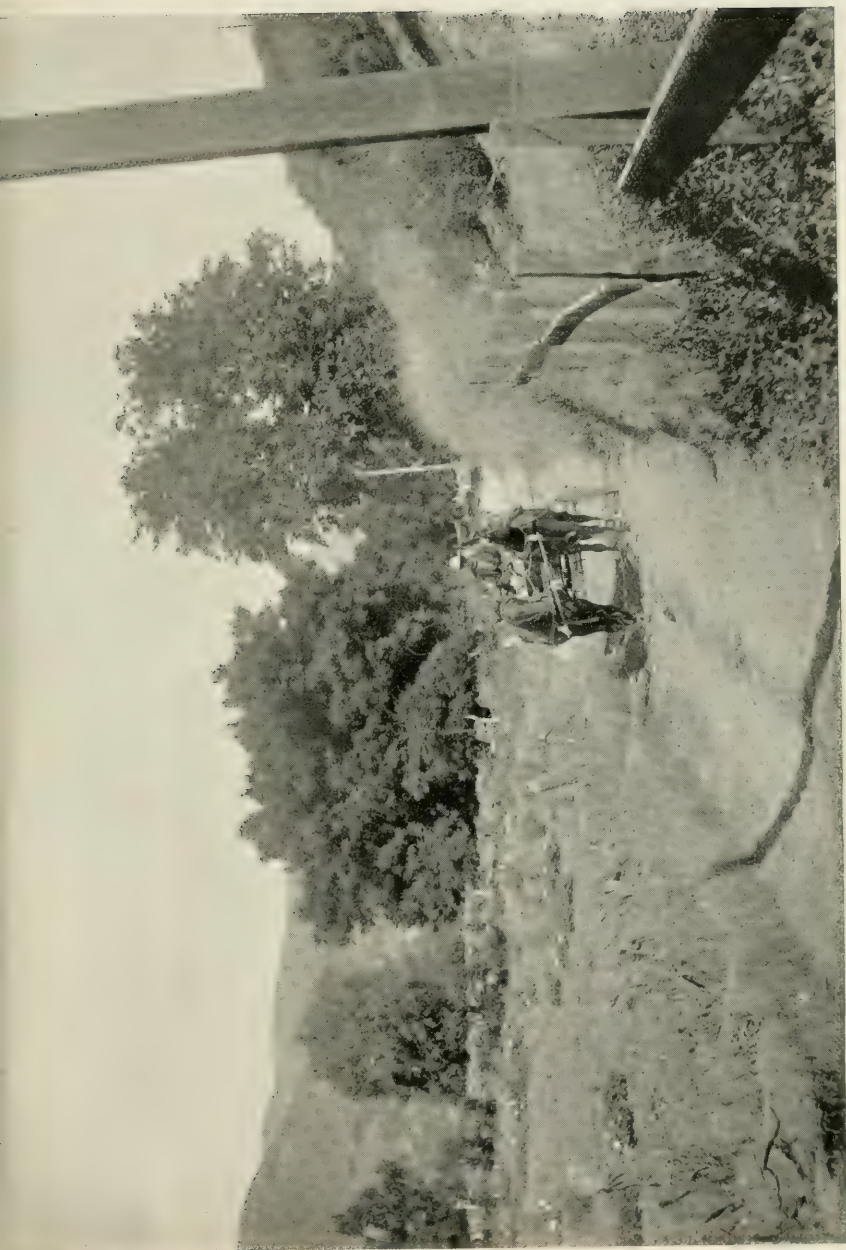
Just as road-building became a science, fostered by our Government, and placed in the hands of skillful engineers, the invention of the locomotive and the consequent development of railroad-building came about. At once all the energies of our people were centered upon this new mode of transportation. So great was the impetus thus given, that the United States soon ran far ahead of other countries in mileage of railroad. For generations the building of roads was forgotten, and the building of railroads stimulated and fostered. The highest skill of trained engineers of the country has been and is employed in the general and special work of building, equipping, and operating railroads.

During this period of railroad growth and development, roads have been neglected to such an extent that generations have grown up that have never seen a road. They have learned to speak of streaks of dust or mud, as the case may be, as roads—have actually learned to regard them as such, and solemnly dedicate the same to public use, with all due legal form, as if they really were well-located, graded, drained, and thoroughly metaled highways. The engineers of the country have so seldom, until lately, been employed on road work that they, too, have looked upon road-building as a lost art, which at one time was practiced by the ancients. But of late years the wave has turned; the people have begun to realize that in good roads there is an escape from the heavy burdens they now bear in maintaining and operating bad roads, and that a real, positive source of wealth is within their control and reach.

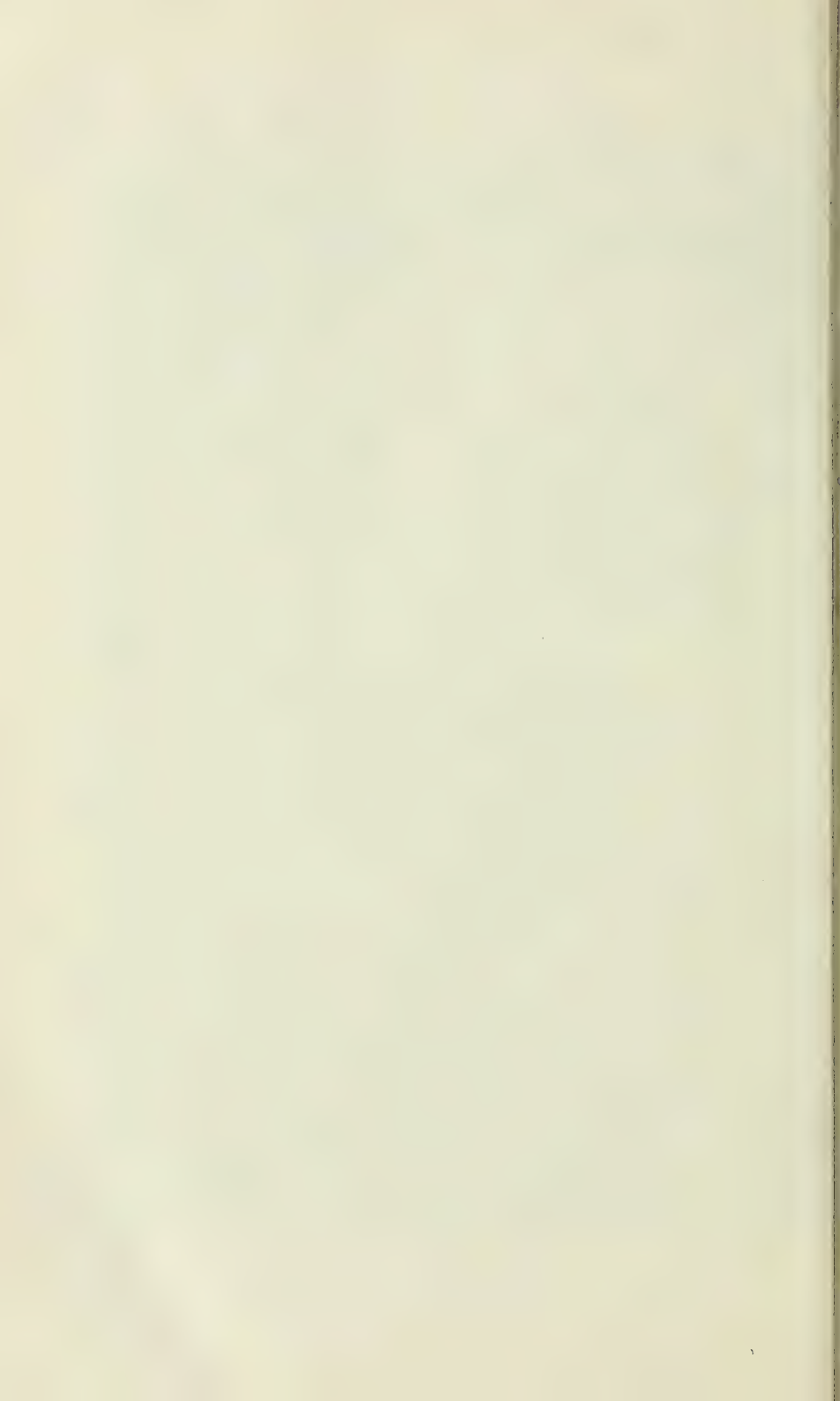
UTILITY OF AND
DEMAND
FOR GOOD ROADS.

Nowhere can this be more clearly shown than in California. Every industry of the State finds its heaviest burdens incident to bad roads. The *farmer* is taxed more heavily in hauling his grain from the field to the depot than in transporting it from the depot to the ship. He is therefore beginning to realize that it is economical to construct a good road, that will permit of hauling four or five tons per span of horses, rather than to pay the cost of hauling one ton, or less, per span of horses upon a bad road. He is learning to appreciate the fact that a good road, that will permit of travel throughout the entire year, does not cut him off from communication with the rest of the world during the winter season, and thereby tends to make farm life more attractive to his family. The *miner* finds that his teaming bills largely tax the wealth he extracts from the earth. The *fruit-raiser* and the *vineyard-ist* are compelled to bear a heavy tax in the loss resulting from the dust and bruising incident to bad roads. The *teamster* is taxed by having to haul light loads, feed a greater number of animals, and pay for heavy repairs. The *merchant* finds that the absence of such roads as will permit of travel throughout the entire year deprives him during the winter season of the trade of the farmer, the horticulturist, and the miner. *Liverymen*, with large sums of money invested in horses and conveyances, and *breeders of fine stock*, find their capital uselessly invested because of the absence of good roads inviting pleasure-seekers to drive. The *railroad and steamship transportation companies* realize that good roads are a benefit to them, in that they develop the various industries of the State, and permit of the shipment of greater quantities of merchandise, much of which is distinctively Californian, by virtue of the reduction of the cost of hauling to the shipping-point. The desire for improved highways on the part of *those who use the roads for pleasure* is so generally recognized as to require no comment. Those who delight in driving fast horses, or who seek recreation from busy city life in rural or mountain seclusion, have made their desires in this connection thoroughly known. The important part played by the *manufacturer and numerous riders of bicycles* in this agitation for good roads has been and is being so constantly manifested that an impression has arisen that this movement, instead of representing the sentiment of every diverse interest of the State, is solely a cyclists' agitation.

The fact is, that the industrial development of our State has nearly reached the limit possible with bad roads. If it is to progress further, it must have, as a basis, the economic and systematic administration of highway affairs. This administration must extend from the first principle of locating a road upon the best grades and alignments, through every detail of thorough construction, to careful and faithful maintenance. To be lax in any particular is to relegate these important matters



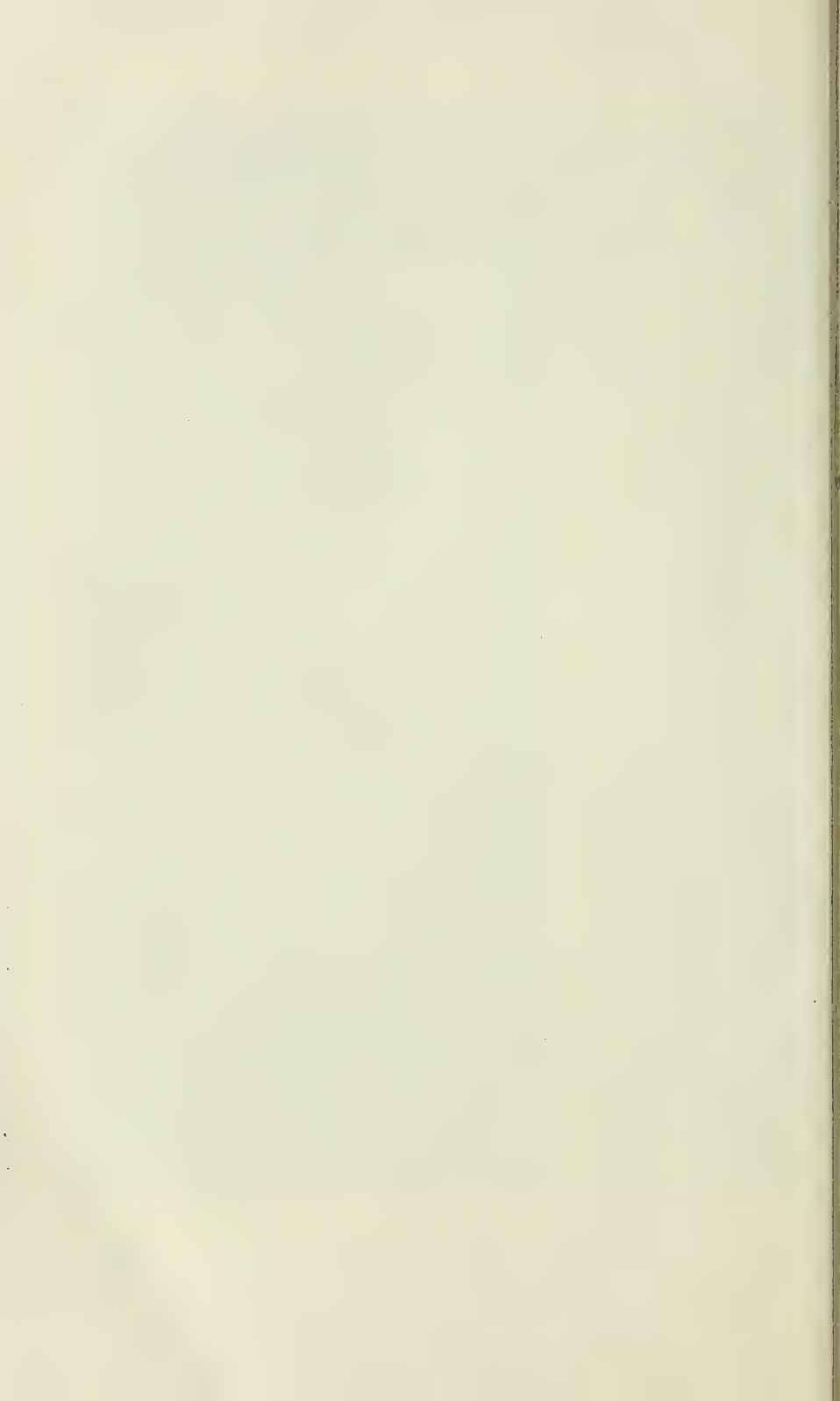
5. TYPE OF ENCRAGEMENT UPON RIGHTS OF WAY.—Highway too narrow for teams to pass.
Photograph by Bureau of Highways.]





3. TYPICAL METHOD OF "GRADING" A ROAD SO AS TO RENDER IT USELESS—Forcing teams to use the shallow ditches on either side of the road

Photograph by Bureau of Highways.]



to the conditions now existing. It is the realization of these truths which has manifested itself in the great interest in the "Good Roads" movement by individuals, societies, and general and special organizations throughout the United States, as well as in the political platforms of the various parties.

Evidence of the need for reform of the highway system of this State is afforded by a consideration of the constant tinkering with the road laws of the State. Every session of the Legislature has brought about the introduction of all kinds of measures, each aiming, perhaps, at a praiseworthy effort to rectify the faults that have manifested themselves in different localities, but resulting only in still greater confusion. To ascertain all the highway laws now in force, to segregate those ineffective and obsolete from such as are effective, was one of the duties imposed by the Act creating the Bureau.

* * * * *

DUTIES OF THE BUREAU OF HIGHWAYS. It was under the authority of this Act, approved March 27, 1895, that, on the 11th of April, 1895, the Bureau of Highways was organized. The Act required a broad and exhaustive study, first, of the laws appertaining to highways in this and other States; second, of the physical features of the State and their relation to a system of roads; third, of the economic and legal status of the highway conditions in each county in the State, and the presentation of the facts and conclusions reached in the form of a report, recommending such measures as the Bureau deemed advisable. The law also required that one or more members of the Bureau should, during each of the two years of the existence of the Bureau, visit each county in the State, and hold public meetings for the consideration and discussion of matters pertaining to highway improvement.

* * * * *

TRIPS OF INSPECTION AND VISITS TO COUNTIES.

In carrying out the provisions in reference to visiting counties, the Bureau determined that, as the Supervisors and Surveyor of each county were directly concerned with the matter of highway improvement, and as power was given the Bureau "to call on the Clerk of the Board of Supervisors, Surveyor, Auditor, or any other official for such assistance as may be necessary for gathering the information it may desire," the public meetings should be held with these officials. Accordingly, in arranging the visits, the Clerk of each county was notified of the date of the proposed visit to his county, and requested to secure the presence of the officials particularly specified, and to invite, through the medium of the press, all persons

interested in road matters. In the first year of the Bureau's official existence, it was aimed by the Commissioners to drive together, as far as possible, or to so arrange their visits that each Commissioner might travel over that portion of the State with which he was least familiar, to the end that each might secure a thorough knowledge of the conditions of the State, and thereby be better enabled to arrive at a feasible solution of the immense problem with which the Bureau was confronted. Believing that its duties would be discharged to a better advantage by driving over the roads, and thereby being brought in actual contact with their condition, the Bureau purchased a team of horses and a wagon, and during the first year traveled over the following distances: Commissioner Irvine, 3,000 miles; Commissioner Manson, 2,818 miles; Commissioner Maude, 1,950 miles. The official meetings were held on the dates indicated in the appended report on the conditions encountered in each county. During the second fiscal year, the State was districted, Commissioner Irvine traveling over the northern portion, covering 3,500 miles; Commissioner Manson over the central portion, covering 4,262 miles, and Commissioner Maude over the southern portion, covering 1,300 miles. Again all traveling was done by means of team, and the attention of the Commissioners was particularly directed to gathering the data herein contained.

In addition to these meetings with the county officials, several other public meetings were held in different communities, principally under the auspices of various organizations for local improvement.

In accordance with the instructions of the Governor, who is *ex officio* President of the Board of Yosemite Valley Commissioners, the three Commissioners of the Bureau left Sacramento on the 31st of May, 1895, to meet with the Yosemite Valley Commissioners at their annual session held in the valley on the 6th of June. As a result of this trip of the Commissioners of the Bureau, a report on the highway condition of the valley, containing recommendations deemed advisable, was filed with the Governor.

Addresses on matters pertinent to highway affairs were delivered by different members of the Bureau at meetings held under the auspices of the Chamber of Commerce of Los Angeles, the Chamber of Commerce of Eureka, the Elk Grove Grange, the Students' Engineering Club at the Leland Stanford Jr. University, Stockton Commercial Association, Santa Cruz Good Roads Association, as well as at a meeting arranged by the citizens of Redding, and at one held in San Francisco under the auspices of the Highway Improvement Committee of the League of American Wheelmen, assisted by the various Improvement Clubs, the Merchants' Association, Butchers' Board of Trade, Technical Society, Scavengers' Union, and various bicycle organizations. On the occasion of the Commissioners' visits to San Diego, Tulare, and Alameda counties in each

year, meetings held under the auspices of the Wheelmen's Club of San Diego, the Tulare Grange at Visalia, and the Alameda Good Roads Association in Oakland were addressed. The Bureau was also represented at the recent dedication of the stone bridge near Monticello.

At the meeting of the Supervisors' State Convention, held in San José on May 11, 12, 13, 1896, the three Commissioners were present, delivered addresses, and participated in the deliberations.

On the 23d of March, 1896, the three Commissioners addressed a meeting in Sacramento, held under the auspices of the Capital City Wheelmen. On account of the peculiarly favorable conditions for the construction of such a highway, and in the hope of seeing a road properly constructed which might serve as an object-lesson to all other road-builders in the State, the Bureau endeavored to induce the citizens of Sacramento County to build a road between Sacramento and Folsom. The suggestion was made at this meeting, and on the 16th of May a meeting was held in the office of the Bureau for the purpose of arranging preliminaries to the construction of such a road. Another meeting was held by the citizens of Sacramento in the court-house on the 22d of May, which the Commissioners addressed, and subsequent meetings were held at Mills (Hangtown Crossing), Florin, and Folsom, for the purpose of arousing the interest of the people in the proposed highway. A plan was decided upon which provided for a contribution of \$5,000 from the City of Sacramento, to be raised by issuance of bonds, but the City Trustees refused to submit the matter to the people, and consequently all action toward securing the construction of the road was dropped.

It was found in these visits that the sentiment of the people generally was aroused to the necessity for prompt reform of the highway regulations, and this encouragement from the people generally and the practically universal indorsement of the press have led to the conclusion that the time never has been, and probably will not again be for several decades, so favorable to legislative action as the present. As the result of the first year's travel and investigation, a crude plan, substantially similar to that previously outlined, and more accurately defined in the following pages, was determined upon as the line of action along which California must move in the betterment of her highways, and all subsequent investigations and considerations have served to confirm and strengthen those convictions and to bring out the details of the plan proposed.

* * * * *

DIFFICULTY OF SECURING ACCURATE DATA.	In gathering the data which is presented largely in Tables 1 and 2 and in the detailed description of each county given in Appendix A, the Bureau has been seriously handicapped by the lack of a definite business-like system on the part of the counties in keeping account of expenditures and preserving records. The need of the intro-
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duction of a system of general book and record keeping for every county in the State was made clear. The law required that the Bureau ascertain the amount expended for highway purposes during the past ten years, but in the majority of the counties the absolute impossibility of obtaining anything like an accurate knowledge of the expenditures presented itself. The accounts, as a general thing, are not kept in such form as to put on record the work, materials, and cost of any definite piece of work, as should be done in every case.

In most of the counties there exist the recorded data, through which can be ascertained, in a general way, the amounts expended upon all the county roads. But this is not in such condition as to show, even in general, what has been accomplished. In some, the mode of keeping accounts has been so lax that it is impossible to ascertain what amounts have been collected and expended upon roads, and the figures given are sometimes based upon the property values and tax rate, with a percentage deduction for delinquent taxes.

In the case of definite contracts for a specified amount of work upon fixed grades, the contractor has been frequently allowed to change the grade and alignment to his advantage and against the interests of the public. This is possible by reason of the absence in the law of any provision which requires the County Surveyor to certify whether or not the work has been done in accordance with the contract before payments have been made. It is, therefore, a matter of great difficulty to ascertain the amounts of money expended by the various counties, and an impossibility to approximate, except in a general way, the extent and character of work done.

In the crude and disjointed shape in which the Bureau has found many of the records of highways, it has been impossible to gather accurate statistics. In the majority of counties the records are in such condition as to cause grave doubts as to the ownership of the right of way over a large percentage of the mileage of roads. In fact, it is only to some of the roads laid out in recent years that deeds to the rights of way have been secured. The roads laid out at an earlier date are used simply by prescription. Some have also been illegally and informally altered, shifted, or fenced up, with no record or evidence whatever of the act, except the visible evidence at the locality and the memory of witnesses. In these changes the public has suffered by the shifting of the road to more difficult ground upon which to build and maintain a road. One of the many instances of this kind is cited to illustrate how the public rights have been pushed aside for purely personal and selfish ends. The ultimate evil can only be realized when it is considered that for the purpose of gratifying the selfish ends of individuals the people have been compelled to construct roads over difficult and faulty locations, and are asked to maintain and operate these roads for all time, when the

interests which instigate and inflict this wrong can last but for a generation or two at most. These relations have not been fully and clearly considered in permitting these evils, but have been speciously glossed over, with the invariable result that the people's interests suffer.

The road from Lakeport to Upper Lake, for example, was originally well laid out; it was located on a nearly direct alignment upon gently sloping and easily drained land lying along the base of a series of broken clayey hills west of Clear Lake. First one and then another of the land-owners shifted the road westerly over the uneven and difficult hill land, until the additional length of road is about two miles, and the road lies along the edge and over the miry slopes of the adjacent hills in a faulty and difficult location. The original right of way has been forfeited by these actions for a distance of eight miles, and to recover it would cost the county nearly \$20,000. This instance is cited as one of many, and will be recognized as a type of similar actions in nearly every district in the State.

These evils are, however, decreasing, and a broader sense of public need is being entertained; they can gradually be eradicated by a just and equitable administration of highway affairs and by the unselfish consideration of the rights involved by land-owners.

It has been difficult to ascertain the mileage of roads in each county of the State, for although the law prescribes that the roads must be surveyed and recorded, it has been carried out accurately only in a few counties. The tables appended give 45,056 miles as the approximate mileage now existing. It is not possible to ascertain what portion of this is unnecessary. As the law now stands there is no classification of roads, and each mile is entitled under the law to the same consideration. This defect in the law is, however, partially remedied by the recognition by county officials of the necessities of each case, and by the expenditure of highway funds in such a manner as to partly meet these necessities.

There are, in many counties, miles of expensive roads which principally serve interests beyond their borders, but upon which no money can now be expended from the industries and communities vitally interested.

* * * * *

Another duty devolving upon the Bureau of Highways was that of receiving the orders for highway metal from the rock-crushing plant at the Folsom State Prison, which was erected in accordance with the provisions of the Act approved March 28, 1895. The Governor, the Board of Prison Directors, and the Bureau of Highways were authorized to act jointly in the establishment and operation of the plant, and at a joint meeting held in the Governor's office on the 6th of July, 1895, it

ROCK-CRUSHING PLANT.

was determined to proceed with the establishment of the plant. From inquiries received, it was clear that sufficient quantities of the metal would be ordered to justify the establishment and operation of the plant, and the Southern Pacific Company had generously agreed to haul the metal at the actual cost of transportation, the rates ranging from three quarters of a cent to one cent per ton per mile.

On September 28, 1895, the Board of Prison Directors and the Bureau of Highways met jointly at the Folsom State Prison and opened the bids for the construction of the plant, which had been previously advertised for, and at an adjourned meeting held in San Francisco on October 2, 1895, the contract was awarded to the Union Iron Works. In accordance with the opinion rendered by the Attorney-General, that metal could be supplied only to those using it on public highways, the proper blanks so certifying were prepared by the Bureau, and are required to accompany each order. It was determined at a joint meeting of the Board of Prison Directors and the Bureau of Highways that the metal should be supplied at the rate of 25 cents per ton, and money in payment for each order in advance should be received by the Bureau and transmitted to the Warden of the Folsom State Prison. Up to November 12, 1895, orders for 49,072 tons have been received at the office of the Bureau, and \$12,295 66 has been remitted in payment of the amount ordered and of 110.64 tons sent in excess of orders.

It was the unquestioned intent that the highway metal should be utilized on country highways; but the Supervisors of those counties to which the Railroad Company had given the advantage of cheap rates have failed to respond, notwithstanding urgent advice given by the Commissioners on the occasion of their public meetings that they do so, and circular letters sent from the office of the Bureau to the same effect. The cities, however, have responded eagerly, and more than taxed the capacity of the crusher with their orders for the metal to be used in improving their streets. Stockton, Sacramento, Marysville, and Vallejo have taken the greater portion of the output, the first-mentioned city leading all the rest.

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In the consideration given to the road laws of the State,
 REVISION the presence of many conflicting sections in our Code
 OF ROAD LAWS. was soon demonstrated, as will be found by consulting
 Appendix B. The Bureau has aimed to harmonize
 these, and made such other changes of minor importance as are at
 present deemed necessary. One great defect encountered was the failure
 of the law to prescribe penalties for non-compliance with statutory regu-
 lations. In numerous instances, as, for example, those prescribing the
 erection of guide-posts, the keeping on record of maps, etc., wherein the
 law clearly defines the duties of the Supervisors, absolutely no attention

is paid to the legal requirements, and there appear to be no means either of compelling the Supervisors to discharge their duties clearly laid down or of punishing them for their negligence.

The Bureau has been frequently called upon to furnish different localities with specifications, cross-sections, and general advice, and these requests, when reasonable, as they have been in the majority of cases, have been cheerfully complied with.

The Bureau has found it impossible, in the limited time and with the vast amount of data it has collected, to prescribe more exact forms and methods for both accounts and records, but hopes to be able, before the expiration of its period of existence, to submit such forms as will systematize these important matters.

* * * * *

ROAD LAWS
OF
OTHER STATES.

Another of the duties of the Bureau requires that inquiry shall be made into what laws and methods are in use in other States in regard to road matters, and that an abstract of those best adapted to the State of California be made. In the hope of arriving at a more thorough knowledge of the exact conditions in each State of the Union and the more progressive foreign countries, direct correspondence with the States and countries was entered into. Replies were received from England, France, Germany, Belgium, and from nearly every State in the Union. In a number of States, commissions, with duties similar to the present Bureau of Highways of California, have been organized, and are expected to be made permanent bodies. In many of those States in which such action has not been taken the replies received indicated that, in deference to the popular sentiment, such a line of policy would inevitably be inaugurated. In some States, as the pages immediately following will show, there have been established permanent bodies, charged with the administration of highway affairs.

Upon the decision of the Board of Examiners that the appropriation of the Bureau could not be used for such traveling, Commissioner Maude, at his own expense, attended the National Road Parliament, called by the United States Government, to be held at the Cotton States Exposition at Atlanta, Georgia, on the 17th, 18th, and 19th of October, 1895. The convention was attended by representatives of forty-two States and Territories; tests of road machinery were made, and samples of various kinds of roads were built and traction tests made thereon. It was decided at this convention that the system of State highway construction in vogue in Massachusetts was the most advantageous for general adoption.

In all this correspondence, and at the National Road Parliament, considerable interest was manifested in the action to be taken by California,

due, in all probability, to the proverbial enterprise of our State, and to the statement made by General Roy Stone, Chief Engineer of the Office of Road Inquiry, under the Department of Agriculture, that "California should lead the world in highways."

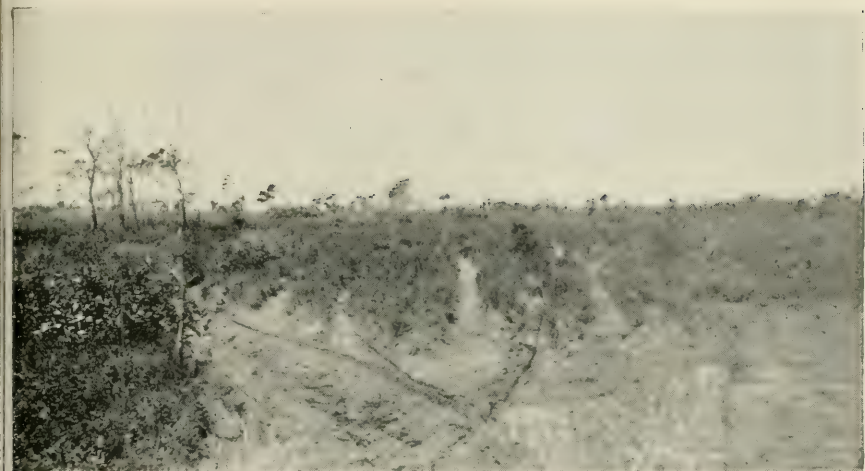
The necessary solution of the problem of improving the highway conditions in this State involves some phase of State management. In view of this fact, the considerations of the Bureau as to what has been done in other States have been chiefly directed toward those States which have taken the lead in the matter of State management of roads.

The difference in conditions in these States, as compared with those in California, however, makes it manifest that different regulations must be introduced here, although the success attending the introduction of the plan of State management in other States leads inevitably to the conclusion that the work must be along the same lines. When we consider that the States of New Jersey, Massachusetts, Rhode Island, and Connecticut operate under constitutions much more elastic than does our State, and that the areas of these States are 7,455, 8,040, 1,085, and 4,845 square miles, as compared with an area of 155,980 square miles for California, it is apparent that different regulations must prevail here.

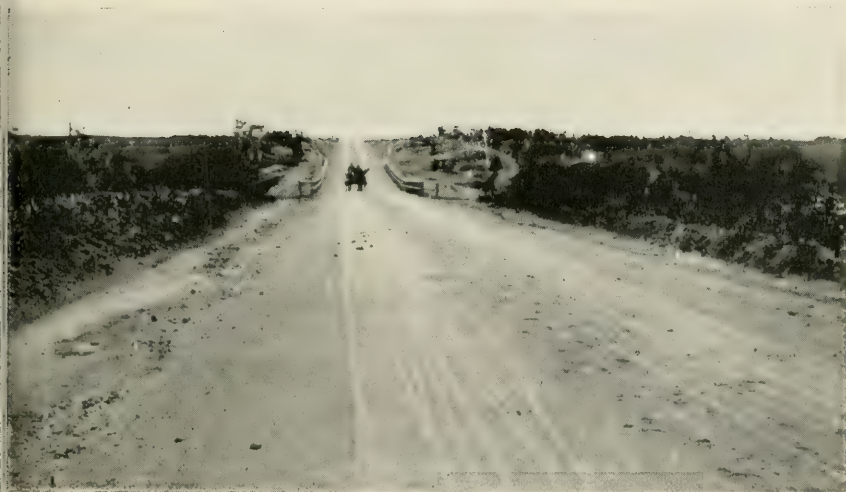
The first State highway law passed in New Jersey, in 1891, provides that upon the petition of the owners of two thirds of the land bordering on a road, to the effect that they are willing to pay 10% of the entire cost of improvement, the Board of Chosen Freeholders must cause the road to be improved, if the estimated cost of improvements does not exceed one half per cent of the ratables of the county for the last preceding year. The board must then cause specifications for stone, macadam, or telford roads to be prepared, and must order the survey to be made. One third of nine tenths of the cost of such road is to be paid by the State, the Freeholders certifying two thirds of the estimated cost, less the one tenth paid by the property-owners, to the County Board of Assessors. The sum paid by the State is not to exceed \$75,000 per year.

The enforcing of this law devolved on the President of the State Board of Agriculture, but by amendment, in 1894, the position of State Commissioner of Public Roads was created, and the results to the State have been thoroughly satisfactory.

The record of the legislation in the State of Massachusetts in regard to the State management of highways is interesting. The first Act was passed in 1893, and provides that the commissioners of the county might petition the State Highway Commission, created by the Act, and consisting of three members, that the commonwealth acquire as a State highway a new or an existing road in that county, definitely specified and described, with plans and profiles. If the Highway Commissioners

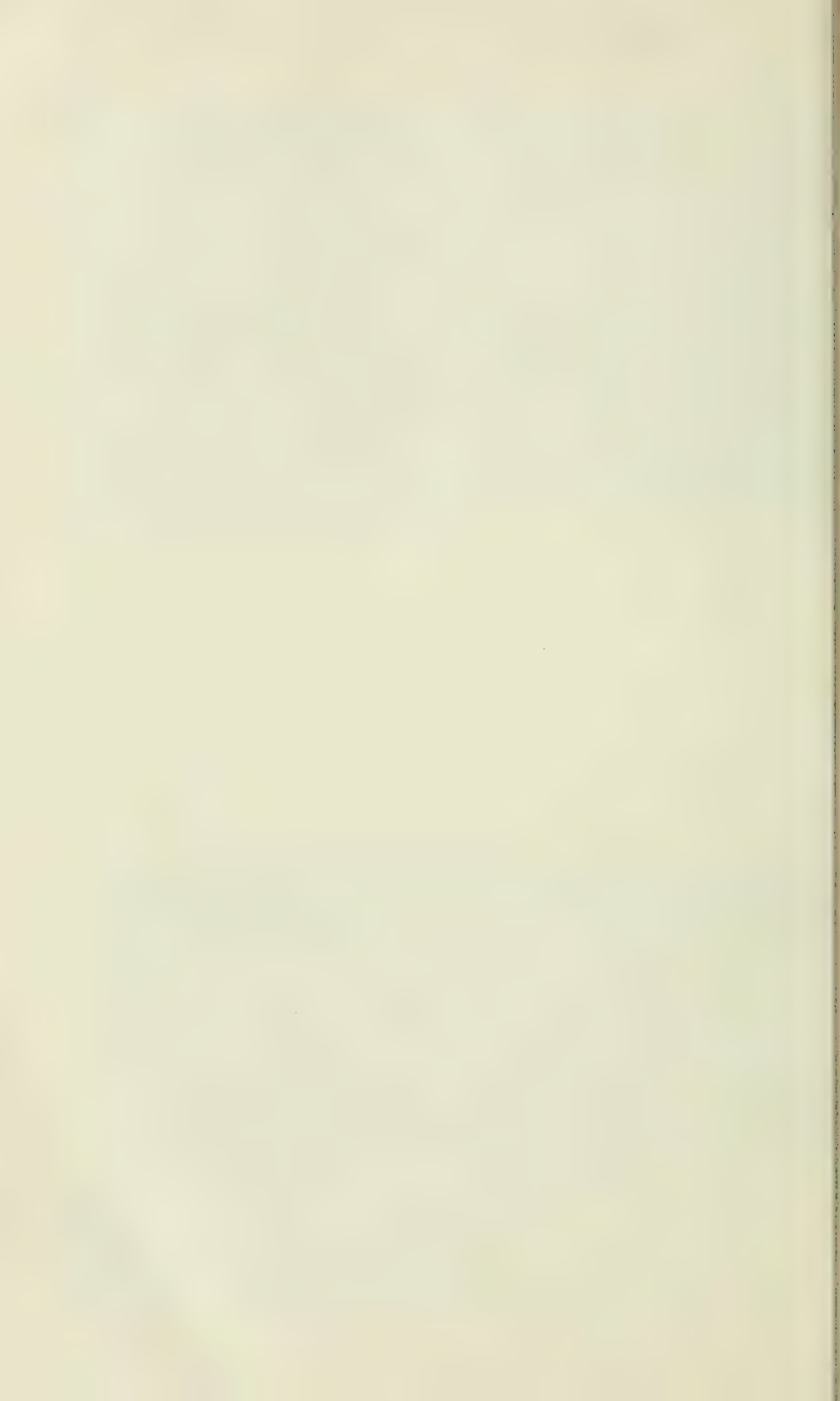


9. NANTUCKET MILESTONE ROAD IN MASSACHUSETTS, SHOWING OLD TOWN OR COUNTY ROAD.



10. THE SAME ROAD RECONSTRUCTED UNDER THE SUPERVISION OF THE STATE HIGHWAY COMMISSION OF MASSACHUSETTS.

From Photographs furnished by the Massachusetts Highway Commission.



approve the petition, the County Commissioners cause the road to be surveyed and laid out at the expense of the county. The State Commissioners then present the petition, with their approval thereon, to the Secretary of the Commonwealth, who places the matter before the Legislature, which meets annually. If the Legislature make an appropriation for the construction of the road, the State Commission causes the road to be constructed, and, when completed and approved, the road becomes a State highway, to be maintained by the commonwealth, under the supervision of the Commission. The Act also provides that two or more cities or towns may petition the Commission that the commonwealth acquire as a State highway a new or an existing road leading from one city or town to another, plans and profiles accompanying the petition. If the petition be approved, a copy, with the finding of the State Commission, is given to the County Commissioners, who then cause the road to be laid out and surveyed at the county's expense. The State Commissioners then transmit the petition to the Secretary of the Commonwealth, and the subsequent proceedings are as described. All grading and the construction of culverts and bridges must be paid for by the county or counties in which the highway lies, and the work must be done to the satisfaction of the Commission. The fund which the State makes available is utilized exclusively for the metaling and construction of roads.

The amendments made to this Act in 1894 are significant, first, in that they give the State Commission authority to construct, not only country roads, but city and town streets, under the conditions with reference to petition previously described; and secondly, that an appropriation of \$300,000 is made. The cities or towns are given the right to contract with the commission for the construction of so much of the highway as lies in their limits, without advertising; not more than ten miles of State roads are to be built in any county in one year without previous approval, in writing, by the Governor and Council; one fourth of the money expended in any county by the commonwealth for a highway under the provisions of this Act must be repaid to the commonwealth within six years, at 3% interest, and these sums so repaid are applied to the appropriation to be expended by the commission. The appropriation is in the form of a "State Highway Loan." The Act authorizes the Treasurer to issue, with the approval of the Governor and the Council, scrip, or certificates of indebtedness, to an amount not exceeding \$300,000, for a term not exceeding thirty years. These are issued as registered bonds, or with interest coupons attached. They are sold at public auction or otherwise, and a sinking fund is established, into which premiums on the sale of the bonds and proportioned amounts are paid to extinguish the debt. The amount necessary to meet the sinking fund requirements is raised by taxation from year to year. The

success attending the introduction of this plan of State regulation of highways is clearly shown by the action of the State Legislature. In 1895, the appropriation for the construction of State highways was increased to \$400,000 for that year, and in 1896, to \$600,000.

In 1895, Connecticut introduced a plan of State highway management. The Act passed in that State provides for the appointment of three commissioners, to whom, whenever any town votes its intention to cause a road to be improved under the provisions of the Act, the specifications prepared and the surveys made by the selectmen of the town must be submitted. If a majority of the commission approve the specifications, the selectmen advertise for bids. The commissioners supervise the contracts and the construction of the road. One third of the cost of the roads is paid by the State, to an amount not exceeding \$75,000 per year, one third of the cost by the county, and one third by the town within which the road is constructed. The town must keep the road in repair.

In the same year, Rhode Island passed an Act providing for the appointment of a State Commissioner of Highways, who must be a civil engineer. Whenever a town council or board of city aldermen represent to the State Commissioner the need of repairs to any road, the State Commissioner must examine the premises, and if he deem the work necessary, he must prepare plans and estimate the cost, reporting to the council or board of aldermen and also to the General Assembly. He must recommend what proportion of the expense should be borne by the State and what by the town or city. If his recommendation be approved by the General Assembly, the Commissioner causes the highway to be built by contract, and then apportions the expense to each town or city.

The excellent road systems of Rome and Peru, and the important part they played in developing the wealth and power of these ancient nations, are known to every student of history. France, England, and other European nations have developed systems that are worthy of the emulation of the other nations of modern times. Of such importance are the roads of France considered that the chief executive officer is a member of the Cabinet. To no one cause is the general prosperity of the French people more directly attributable than to the excellence of their highways.

* * * * *

POLITICS IN
ROAD-
BUILDING.

The conditions which have for years demanded an investigation into highway matters in this and other States, have resulted from the fact that the people were so eager in developing other lines of wealth that road-building has been neglected for several generations. The condition of highways in California to-day is the result of generations of neglect and apathy. Not only has this been the case, but

an unfortunate outgrowth of our system of government has permitted the injection of politics into the business management of economic matters of great importance to the industrial development of our country. In too many instances the road funds have been regarded as the funds from which to pay political debts, or to be used about election times to further political interests. In several counties the Bureau has ascertained that officials have selected for employes on roads those owing them for merchandise, food, board, or drinks. Large bills have thus been incurred by the county, and personal indebtedness indirectly paid from public funds, with a bare pretense at an adequate return therefor. The evils thus introduced have been accumulative from year to year, from term to term, and, indeed, from generation to generation.

To correct these evils will require comprehensive and intelligent legislation and administration, extending over many years. The Bureau believes that it has succeeded in laying the foundation for a great system of highways, which, under judicious management, will, from year to year, grow in its capacity to develop the wealth of the State.

* * * * *

HIGHWAY EXPENDITURES IN CALIFORNIA.

Before considering the details of the plan herein recommended, it should be borne in mind that there has been expended upon the county roads in California, as will be seen by consulting the tables published herewith, during the years 1885 to 1895, inclusive, the sum of \$17,919,324 26, and that during the fiscal year end-

ing July 1, 1895, \$1,789,259 64 was similarly expended. As previously stated, these sums are less than the actual amounts, because county records are in such condition that it is impossible to get exact figures. It frequently happens that bridges and other structures are paid for, in whole or in part, out of other funds than those set apart for highway purposes. It has been impossible for the Bureau to trace these expenditures fully in the limited time set apart for its studies of this matter. Again, subscriptions by private parties are frequently made, and no account thereof is kept in the official records of expenditures. These in the aggregate amount to many thousands of dollars annually. There are also made large subscriptions of labor and materials, of which no definite records or accounts are kept. These two items would, if ascertainable, bring the expenditures of 1895 up to \$2,000,000.

The results obtained by these vast expenditures have been insignificant in the extreme. To contemplate the fact that, in the period embraced in the years 1885 to 1895, inclusive, at least \$18,000,000 of the people's money has been expended, and that no adequate return therefor is apparent, not only lays bare the inadequate and inefficient methods now in use, but it almost arraigns the intelligence of the peo-

ple. It will be necessary to maintain existing roads, as the needs they serve are imperative, but a saving must and can be effected. The existing roads should be maintained, through system and economy, with a sum not to exceed 75% of the present rate of expenditure. It is the opinion of the Bureau that even a less sum would be sufficient. But granting the large sum as necessary, would still leave 25% of the sum expended during the past decade, or \$4,500,000, available for the systematic construction of permanent roads.

There is hardly any need to state that these vast expenditures have been made in a manner extravagant and wasteful in the extreme. The numberless minor instances which have been brought directly before the Bureau sink into insignificance in comparison with the vast figures given; but the Bureau has numerous instances which, although small, distinctly mark the wastefulness of the system and the uselessness of some of the expenditures.

The only reason why these expenditures have not bankrupted the counties of our State is the fact that these moneys have generally been paid to residents of the State, and have thus not escaped from our limits. The evil of the system lies in the fact that no adequate return has been made to the people for the amounts they have been called upon to expend.

* * * * *

REFORMS RECOMMENDED.

The Bureau recognizes that, in the existing industrial conditions, it would not be wise nor just to advocate an increase in the maximum tax rate now authorized for highway purposes. The true way to lessen existing evils is to reduce and equalize the rate of present taxation and to expend *economically* and *wisely* the amounts raised. It is therefore recommended:

1. That the limit of taxation for highway purposes in each county, now fixed by law at 40 cents per \$100 of assessed valuation of outside property, be reduced to 35 cents;

2. That a general State levy of one quarter of a mill per \$1 of assessed valuation be made, the proceeds of which shall constitute a State highway fund for the systematic location, construction, and maintenance of the system of State highways hereinafter outlined.

Under this system every taxpayer in the State will contribute to the construction of these main highways. At present only those owning property outside of incorporated cities are called upon to bear the expenditures on roads; but under the plan recommended those owning property solely in the cities, and who are likewise benefited either directly or indirectly, will bear a slight share in the cost of this needed improvement. The amount is infinitely small, but the results will be of tremendous advantage to the entire State. The counties will gradually

be relieved of the expense of maintaining that portion of the State highways within their limits, thus leaving a larger sum for their county thoroughfares and district roads. These latter, by proper construction, will gradually require smaller expenditures for maintenance, so that the system proposed herein, and found advisable in other States and countries, *will tend to lessen the burdens now endured.*

Although the system of State highways recommended seems a gigantic undertaking, it is reasonably certain *that it can be built within the next few decades with what can be saved from the present extravagant and wasteful methods.*

* * * * *

THE STATE HIGHWAYS TO TRAVERSE GREAT BELTS OF WEALTH.

In laying out the system which the Bureau recommends, consideration was taken of the fact that our State has primarily four great belts of natural wealth. In progression eastwardly and order of development, these are: First—The great mineral belt, commencing in Del Norte County, and reaching southeastwardly through the entire limits of the State;

Second—The great agricultural belt of the 16,000 square miles of fertile land in the great valley of California;

Third—The great timber belt, commencing in the northwesterly corner of the State, and extending southeasterly to the Golden Gate;

Fourth—The great fruit belt, commencing at the base of Mount St. Helena and extending southerly through deciduous orchards, vineyards, olive and orange groves to the national boundary.

Each of these great belts is interspersed with sources of wealth other than those which characterize it; but the classification given marks the predominant natural wealth of each of the various sections.

At advantageous points along each of these great belts, centers of population are growing up. The problem of laying out the great lines of communication which must for all time control the travel and traffic of our State therefore presents itself. These lines have a simple function to perform, but must be subservient to two great controlling factors: First, they must lie along those lines, determined by nature, which offer the best grades and alignments; second, they must subserve the economic purposes demanded in the development of the State.

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COMMERCIAL NECESSITIES FOR STATE HIGHWAYS.

In addition to these reasons urged in favor of the construction of State highways, it must be borne in mind that many counties too poor to properly construct and maintain permanent highways, are traversed by roads of importance to the entire State. A vast amount of business that should be transacted with the commercial centers of our State is diverted to our northern

and eastern neighbors, simply on account of the lack of requisite means of communication. The remedy for such a condition of affairs cannot be expected of a county which will receive no direct benefit and which, as is generally the case, has scarcely sufficient funds for affairs of local and urgent necessity. The entire State is either directly or indirectly interested, and the benefits that would accrue would be not of avail simply for a particular county, but would aid in advancing the commercial interests of the entire State.

Numerous examples might be given of such a condition of affairs. A road over the Tejon Pass, at the southern end of the great valley of California, would connect this important section of the State directly with the growing interests south of Tehachapi. Its length would be about 70 or 80 miles, and its construction costly. Owing to the lack of population in those portions of Kern and Los Angeles counties directly brought in contact with the highway proposed, this advantageous improvement cannot be inaugurated. The necessity for such a measure as proposed again impresses itself when it is found that, after traveling north of the latitude of Ukiah on the western side of the Coast Range, and that of Colusa on the eastern side, there is absolutely no road upon which to cross from one side to the other until the traveler reaches Grant's Pass in Oregon, a distance of 225 miles. A highway connecting Red Bluff, at the northern end of the great valley and the head of navigation of the Sacramento River, with Eureka, in Humboldt County, would result in immense advantages to two important sections of the State. But even assuming that the counties through which such a highway must pass were to act jointly, it would be found that while Tehama might be able to afford to build that portion of the highway within her confines, and Humboldt that within her county, the sparsity of population and consequent lack of funds of the intervening county of Trinity would prevent the completion of the highway. A similar state of affairs is presented after the necessity of another highway in a northeasterly direction from Red Bluff is made evident. Again, the great advantages that would follow the construction of a highway from some point at the southern end of the great valley of California to tidewater, as from Bakersfield to Port Harford, are clear, but the sparsity of population in Kern and San Luis Obispo counties and the inevitably consequent lack of funds render it impossible without some form of aid from an external source. The fact that two of the Commissioners were compelled, in each year of the Bureau's existence, to travel into Oregon a distance of 125 miles, and into Nevada a distance of more than 200 miles, in order to visit each county of the State, is further evidence of the necessity for State construction of highways.

Again, it frequently happens that several neighboring counties are engaged in diverse pursuits, and are unable to exchange their products

advantageously, simply on account of the lack of means of communication. The poverty of one county, or its lack of direct benefit, prevents the construction of a complete highway connecting all the centers which should be brought into business and social contact. One striking example of such a condition of affairs is afforded in the consideration of the necessity for a road through Butte, Plumas, and Sierra counties. Such a highway would materially cheapen the cost of merchandise for the two latter counties, and bring their products to business centers at a much less cost, but Butte cannot afford to construct and maintain expensive roads solely for the benefit of Lassen and Sierra counties, and these latter counties are prevented by law from building beyond their confines.

The construction of ten miles of road in Mono County, connecting the terminus of the Tioga road, which traverses Tuolumne and Mariposa counties, with the now existing county roads of Mono, would bring the people on the east side of the Sierras and the western portions of Nevada into direct contact with the great valley of California. There are, however, very few people living in that portion of Mono County through which the road should be constructed, and the county now maintains as many miles of road as its means will justify. The ten miles of road referred to would be of comparatively little benefit to the county itself, and in view of the lack of funds it cannot be expected that the county would construct the road. The extension of State aid in this direction, however, would bring about the construction of a good road along easy and direct lines, and be of material benefit to the entire State.

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THE PROPOSED STATE HIGHWAYS.

Guided by the principles necessary to be considered and the conditions presented, the Bureau has mapped out a system of State highways, outlined upon the relief map of the State in the office of the Bureau.

This map, which shows at a glance the topographical features of the State, was secured in the belief that its use would result in a better understanding of the problems which the Bureau is expected to solve, point out more clearly the errors incidental to our present system, particularly the defect of faulty location of roads, and demonstrate the breadth and scope of the plan recommended. Upon it have been represented all the important roads now in existence and the proposed system of State highways.

The highways mapped out are as follows:

1. A highway, commencing on the line between the State of California and the State of Oregon, at or near the point where said State line is intersected by the road from Yreka, California, to Ashland, Oregon, and extending thence southerly, along the best grades and alignments,

through the counties of Siskiyou, Shasta, Tehama, Butte, Yuba, Sutter, Sacramento, San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kern, Los Angeles, and San Diego, to Tia Juana, in the last-named county.

2. A highway, commencing at Crescent City, in Del Norte County, and extending thence south and southeasterly, on the best grades and alignments, through the counties of Del Norte, Humboldt, Mendocino, Sonoma, and Marin, to Sausalito.

3. A highway, commencing in the City and County of San Francisco, and extending thence southeasterly, on the best grades and alignments, through the counties of San Mateo, Santa Clara, San Benito, Monterey, San Luis Obispo, Ventura, and Los Angeles, to the City of Los Angeles.

4. A highway, commencing at a point on the State highway through Tehama County, at or near the station of Tehama, and extending thence southerly, on the best grades and alignments, through the counties of Tehama, Glenn, Colusa, Yolo, and Solano, to Vallejo.

5. A highway, commencing at the City of Martinez, and extending thence southeasterly, on the best grades and alignments, through the counties of Contra Costa, Alameda, San Joaquin, Stanislaus, Merced, Fresno, Kings, and Kern, to a point on the State highway through Kern County, at or near Bakersfield.

6. A highway, commencing at a point on the State highway through Shasta County, near the westerly base of Mount Shasta, and extending thence southeasterly, on the best grades and alignments, through the counties of Siskiyou, Shasta, Lassen, Plumas, Sierra, Nevada, El Dorado, Alpine, Mono, Inyo, and Kern, to Indian Wells, in the last-mentioned county.

7. A highway, commencing at Arcata, in Humboldt County, and extending thence southeasterly, on the best grades and alignments, through the counties of Humboldt, Trinity, and Tehama, to a point on the State highway through Tehama County, at or near Red Bluff.

8. A highway, commencing at a point on the State highway through Shasta County, north of Redding, and extending thence northeasterly, on the best grades and alignments, through the counties of Shasta, Plumas, and Modoc, to Fort Bidwell, in the last-mentioned county.

9. A highway, commencing at the City of Marysville, and extending thence northerly and northeasterly, on the best grades and alignments, through the counties of Yuba, Butte, Plumas, and Lassen, to Susanville, in the last-mentioned county.

10. A highway, commencing at the City of Ukiah, and extending thence southeasterly, on the best grades and alignments, through the counties of Mendocino, Lake, and Yolo, to the City of Sacramento; thence easterly, through the counties of Sacramento and El Dorado, to a point on the State line between the State of California and the State of Nevada, at or near its intersection by the Lake Tahoe wagon road.

11. A highway, commencing at or near the City of Santa Rosa, and extending thence southeasterly, on the best grades and alignments, through the counties of Sonoma, Napa, and Solano, to Suisun, in the last-named county.

12. A highway, commencing at a point on the State highway running north from Sacramento, and extending thence northeasterly, on the best grades and alignments, through the counties of Sacramento, Placer, Nevada, and Sierra, to a point on the State highway through Sierra County, near Susanville, in the last-mentioned county.

13. A highway, commencing at the City of Oakland, and extending thence easterly, on the best grades and alignments, through the counties of Alameda and San Joaquin, to a point on the State highway through San Joaquin County south of the City of Stockton.

14. A highway, commencing at the City of Oakland, and running thence northerly and easterly, on the best grades and alignments, through the counties of Alameda and Contra Costa, to Martinez.

15. A highway, commencing at Ione, in Amador County, and extending thence easterly, on the best grades and alignments, through Amador County, to Jackson; thence southeasterly, through the counties of Amador, Calaveras, and Tuolumne, to Sonora.

16. A highway, commencing at a point on the State highway through Santa Clara County, at or near Gilroy, and extending thence northeasterly, on the best grades and alignments, through the counties of Santa Clara, San Benito, Merced, and Mariposa, to the easterly line of the State grant, Yosemite Valley.

17. A highway, commencing at a point on the State highway through Santa Clara County, at or near Gilroy, and extending thence southeasterly and easterly, on the best grades and alignments, through the counties of Santa Clara, San Benito, Merced, and Fresno, to the City of Fresno.

18. A highway, commencing at Modesto, and extending thence northeasterly, on the best grades and alignments, through the counties of Stanislaus and Tuolumne, to Sonora.

19. A highway, commencing at or near Hollister, and extending thence southeasterly, on the best grades and alignments, through the counties of San Benito and Fresno, to a point on the westerly highway through the last-mentioned county, near Huron.

20. A highway, commencing at a point on the State highway through San Luis Obispo County, at or near San Miguel, and extending thence easterly, on the best grades and alignments, through the counties of San Luis Obispo and Kern, to a point on the westerly State highway in the last-mentioned county.

21. A highway, commencing at Port Harford, in San Luis Obispo County, and extending thence southeasterly and northeasterly, on the

best grades and alignments, through the counties of San Luis Obispo, Santa Barbara, Ventura, and Kern, to Indian Wells, in the last-named county.

22. A highway, commencing at the City of Los Angeles, and extending thence easterly, on the best grades and alignments, through the counties of Los Angeles and San Bernardino, to the City of San Bernardino; thence southwesterly, on the best grades and alignments, through the counties of San Bernardino, Riverside, and Orange, to Santa Ana, in Orange County.

23. A highway, commencing at a point on the State highway through Shasta County, north of Redding, and extending thence northwesterly, on the best grades and alignments, through the counties of Shasta and Trinity, to Weaverville, in the last-named county.

24. A highway, commencing at Nevada City, and extending thence westerly through the counties of Placer, Yuba, Sutter, and Colusa, on the best grades and alignments, via the cities of Marysville and Colusa, to a point on the State highway through said last-named county.

25. A highway, commencing at Markleeville, and extending thence easterly, on the best grades and alignments, to a point on the State highway through Alpine County.

26. A highway, commencing at Mariposa, and extending thence northwesterly, on the best grades and alignments, to a point on the State highway through Mariposa County.

27. A highway, commencing at Visalia, and extending thence westerly, on the best grades and alignments, through the counties of Tulare and Kings, to Hanford, in Kings County.

28. A highway, commencing at a point on the State highway through Alameda County, at or near Niles, and extending thence southerly, on the best grades and alignments, through Alameda and Santa Clara counties, to San José; thence southwesterly, on the best grades and alignments, through the counties of Santa Clara and Santa Cruz, via the cities of Los Gatos and Santa Cruz, to a point on the State highway through Santa Cruz County, near Watsonville.

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THE PRINCIPLES OF STATE HIGHWAY LOCATION. It will be observed by consulting any good map of the State, or the relief map of the State in the office of the Bureau, that the system of highways herein presented follows four fundamental principles: First—They are laid out along those lines which the physical features of the State forever fix as the easiest lines of communication;

Second—The great belts of natural wealth which our State possesses are each traversed by one or more highways;

Third—The system connects all the large centers of population within the limits of the State;

Fourth—The system reaches the county seat of every county, and taps the lines of county roads so as to utilize them to their fullest extent.

* * * * *

CONSTRUCTION
AND
MAINTENANCE
OF STATE
HIGHWAYS.

The subject of the cost of these highways naturally suggests itself at this point. A careful consideration of the matter will serve to convince any reasonable person that while the expenditure may seem large, it is really an economical investment, in the sense that one large outlay for a good purpose, and with good results, is more economical than the constant out-

lay of smaller sums, resulting ultimately in an enormous total and producing no results. Of the approximately 4,500 miles of State highways herein recommended, about one fifth would be constructed in the valleys of California, where the soil conditions are favorable, and only grading, rolling, and draining, including the construction of culverts, would be necessary, involving an average outlay of about \$500 per mile. Another fifth would be through adobe, alkali, or clay, or other unsuitable soil of the valleys, where it would be necessary to make an artificial surface of hardpan, coarse sand, or other available material, mixed with clayey soil, which would call for an average outlay of \$2,000 per mile; fifteen per cent of the mileage would consist of mountainous road, where grading and draining would be necessary, but only portions of which would require macadamizing, and a fair estimate of the cost of such a road would be \$3,250 per mile; the remaining forty-five per cent of the mileage would consist of roads through mountainous and rolling land, and would require heavy grading, and the cost of such roads would average \$4,500 per mile. These estimates are exclusive of bridges over fifteen feet in length; but it should be remembered that in many instances where bridges are now constructed an expert road-builder would fill in with dirt or utilize vitrified pipe, as the Bureau has been constantly urging upon the various Boards of Supervisors. In that portion of the mileage in which it is not at present deemed necessary to incur the expense of metaling, a more resistant surface may be required in the future. When this time shall come, the roadway will be found to be ready to receive the necessary improvements, having been placed in this condition under the system herein recommended, and it will not be necessary to relocate, regrade, and build permanent substructures.

Were it not for the fear of neglect, the maintenance of these State highways should be left to the counties, but experience would seem to dictate the folly of such a step. The question of maintenance is of immense importance, and if California is to take a forward step in highway

matters every detail must be considered. Road-sprinkling can be practiced for about \$50 per mile, not including the cost of securing the water, and such other maintenance as might be necessary could be met by an expenditure of \$40 per mile. The cost of maintaining roads not requiring sprinkling would not exceed \$75 per mile.

To those who are prone to urge against every innovation the expenditures involved, the most convincing answer is afforded in the experience of this State. For nearly half a century, millions and millions of dollars have been expended on our highways, as has been previously demonstrated, and the results have been practically *nil*. The almost total lack of mileage of properly constructed highways, notwithstanding such gigantic expenditure, answers any possible objection to the introduction of the system proposed on the score of finance, and no other objection seems even remotely possible. The proposition is by no means of small proportion; and the outlay must be proportionate. But with it all, there will result in the end an absolute saving to the people of the State. System will always produce better results with less expenditure of money than haphazard methods. It is not intended that the culmination of this plan shall be witnessed in a month or a year from the date of its inauguration. Had it been introduced half a century ago, when California was first organized, we should have had greater prosperity with less taxation. If it be introduced now it will take less than this time to complete the system for us.

To carry out this plan, a State body clothed with the necessary power to construct and maintain these highways must be created. It should be comprised of men of unquestioned integrity, selected because of their ability as road-builders. Their powers should be clearly defined, and their work vigorously prosecuted.

The money raised should be expended solely on the construction and maintenance of these highways. Such legal requirements and expenses as may be deemed necessary in securing the rights of way should be met by the counties. No favoritism should be shown any particular section in the construction of State highways. Some work, however little, should be performed at widely separated localities, thus affording the people throughout the State relief from one of their greatest burdens, and, incidentally, an object-lesson in the proper construction of good roads.

* * * * *

COUNTY THOROUGHFARES. The county thoroughfares, or highways of the second class, as they might be called, should be the most important roads of each county. They should be so declared and set apart by the Board of Supervisors of each county, and the advice of the County Surveyor and the Bureau of Highways, or such other body as may be entrusted with the con-

struction of the State highways, should be secured. These roads should serve the general interests of the county; they should be constructed under the direction of the local authorities and with the same care as the State highways, to which they would serve as feeders. It is but reasonable to presume that with the example of roads scientifically constructed by the State, the county road-builders would exert themselves to attain the same degree of excellence in their local work.

* * * * *

DISTRICT ROADS.

The district roads, or highways of the third class, should include all existing roads not included under State highways and county thoroughfares, and all such additional roads as may be constructed to serve the immediate necessities of any particular neighborhood. The people desiring such a road should be authorized by law to organize themselves into a district after the manner of the organization of school districts, and cause to be constructed such roads as they desire. These roads, in turn, would serve as feeders to the county thoroughfares generally, and in some particular cases to the State highways.

With the adoption and vigorous administration of the plan recommended, the road problem in California will have been solved.

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WIDTH OF TIRES.

There are, however, numerous matters which, perhaps of lesser innovation, are none the less essential to the complete success of the road system of California. Of these the most important is the adoption of some general regulation as to the width of wagon tires.

Wherever improved roads have been constructed, an important element in their maintenance and repair has been found in proportioning the width of tire to the load carried. This has been found essential in Inyo County, where tires for wagons range from 3 to 12 inches in width. The introduction of them about twenty years ago was greeted with ridicule, but after practical use they have been adopted, and no narrow-tired wagons were found on sale, although an abundance of wide-tired farm wagons was noted.

In Sacramento and Santa Cruz counties the use of wide-tired sprinklers has been found beneficial. Throughout the State those who have used wide tires have found that they admit of hauling heavier loads. The heavy harvesting machinery of California would be useless without wide tires.

In France, Belgium, Switzerland, Austria, Germany, and Canada, heavy loads are not allowed on the roads at all unless the tires are of widths prescribed by law. There are also corresponding provisions in

the laws of New York, Michigan, Ohio, Kentucky, Indiana, Massachusetts, Vermont, and Pennsylvania.

There is a prejudice against wide tires among many farmers and teamsters who have never used them, but this prejudice will gradually disappear with a broader knowledge of the subject.

The Bureau recommends that a law be enacted which prescribes 3 inches as the minimum width of tire for ordinary farm and road wagons, and for wagons intended for loads between four and six tons that the minimum width of tire be fixed at 4 inches; for loads more than six and less than eight tons, that the minimum width of wagon tires be fixed at 5 inches, and for wagons designed for carrying more than eight tons that the minimum width of tire be fixed at 6 inches. It will be necessary to bring this law into force gradually, as an arbitrary enforcement at an early date would work expense and hardship upon both manufacturers and users. It is therefore advised that after January 1, 1899, a fine be prescribed for having wagons on sale which do not conform to the law as to width of tire, and that after January 1, 1900, the use of wagons not conformable to the law be subject to a license.

In the meanwhile, it is thought that a better comprehension of the fact that wide-tired wagons are road-builders, and that narrow-tired wagons are road-destroyers, will tend to the general introduction of wide tires.

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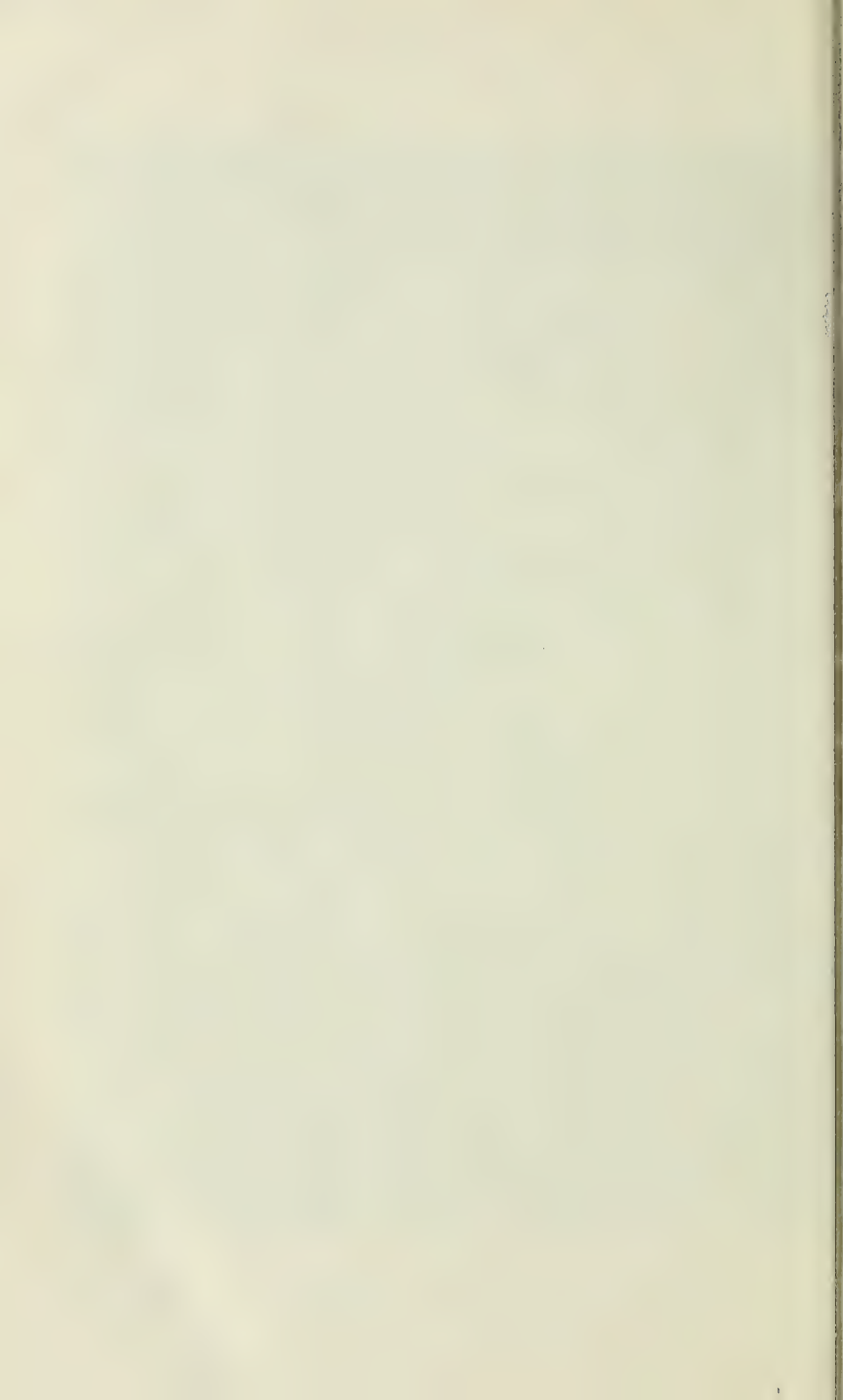
ROAD STRUCTURES.

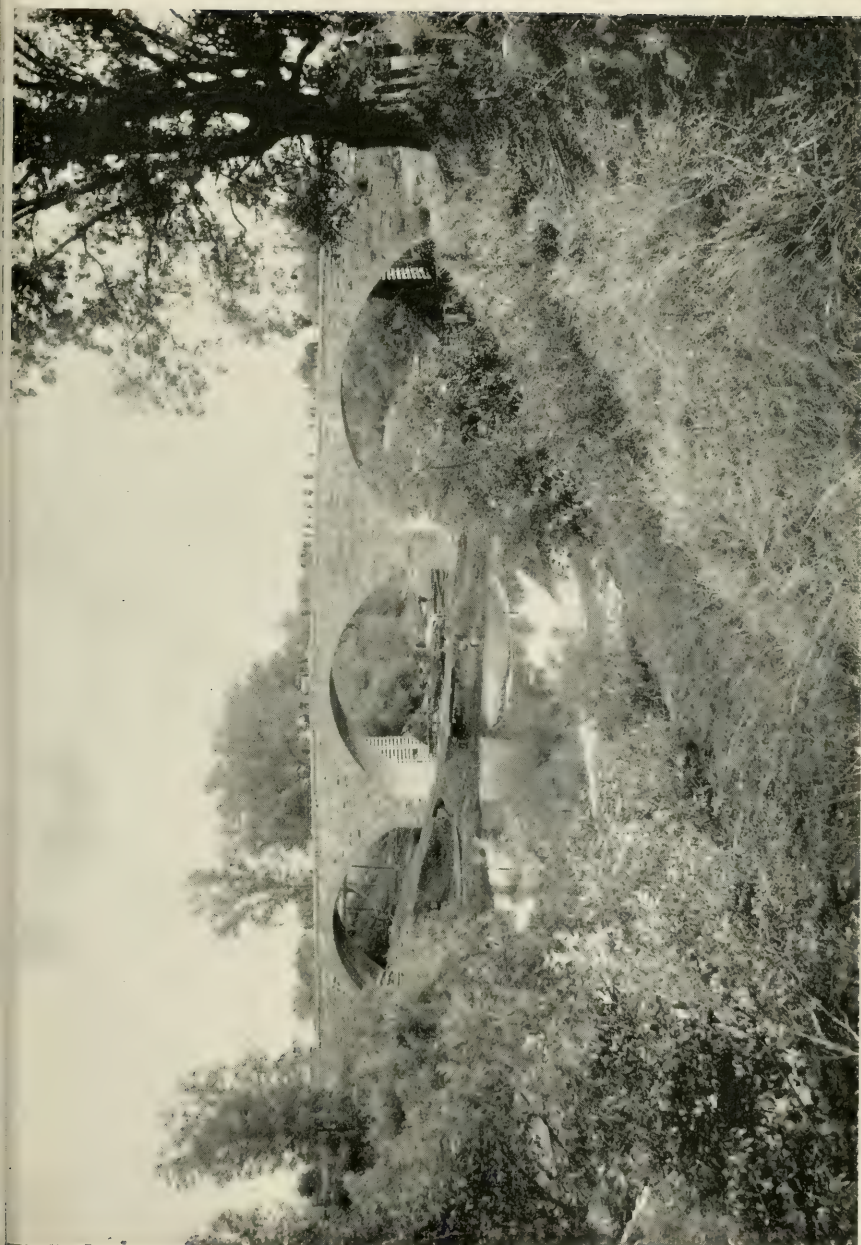
The vast amounts of money expended on the road structures of our State necessitate the consideration of methods of economy in their construction and maintenance. Upon a system of roads covering so large an area as the State of California, the road structures are important and necessarily costly. These structures range from large bridges spanning navigable waters to small box drains conducting a few inches of water under or alongside of the road. These structures in the past have largely been built of the most perishable materials, and repairs and renewals have been a severe tax upon the industries of the State. The adoption of the most durable materials available for these structures is therefore urged. Bridges and culverts, where possible, should be built of stone, concrete, or brick. Small culverts and drains should be built of concrete and salt-glazed sewer-pipe. Where the bridges are of such length and character as to require wooden floors, the floors should be protected from wear by a good pavement of asphaltum or bituminous rock. All wooden bridges should be roofed over, and wooden chords covered with galvanized iron thoroughly painted. Iron and steel parts should be hammered clean of rust and kept well painted. Several counties have realized the economy of permanent road structures, notably Napa, Santa Clara, Alameda, Tuolumne, and



13. TYPE OF EXPENSIVE WOODEN BRIDGE.—Should be replaced by masonry bridge.

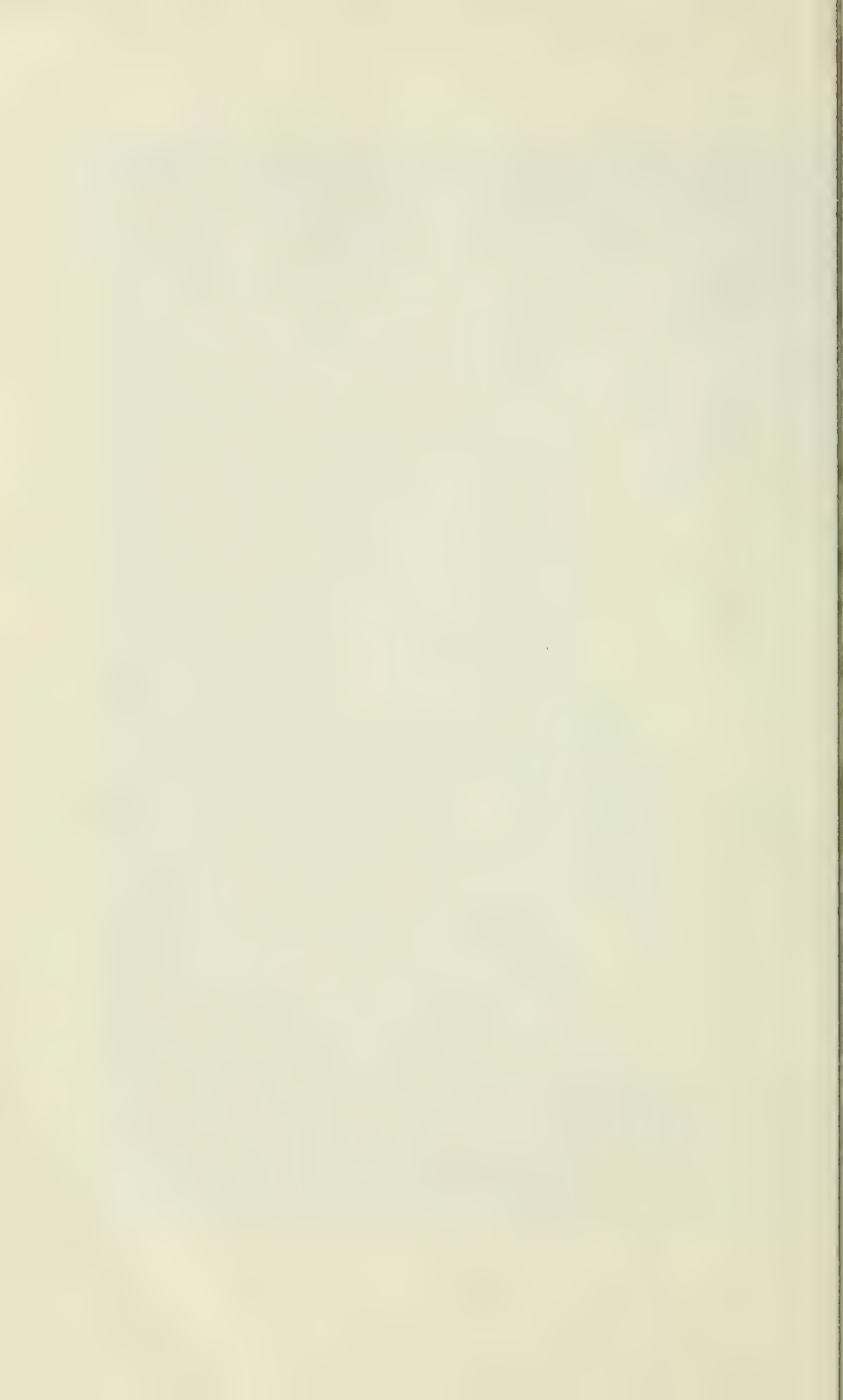
Photograph by Bureau of Highways.]





14. TYPE OF ECONOMICAL STONE BRIDGE.—Across Putah Creek, near Monticello. Cost \$19,980. Replaced a wooden structure which, in the aggregate, had cost the county \$53,000. For details see Napa County description.

[Photograph by H. H. Blakesly, St. Helena.]



several others, mention of which is made under the description of counties.

* * * * *

DUTIES OF COUNTY SURVEYOR.

The important part which the Surveyor of each county plays in the construction of the county highways renders it necessary that a number of changes be made in the law prescribing and defining his duties.

He should be selected by the people on the basis of his ability in, and knowledge of, highway affairs, and should be made the highway adviser of the Supervisors in all matters pertaining to the construction of county highways, just as the District Attorney is their legal adviser. As the law reads at present, his compensation is not definite, but is purely in the nature of fees. As a consequence, it frequently happens that because his political faith differs from that of the majority of the Board of Supervisors, or because the Supervisors wish to control their expenditures directly, the County Surveyor is utterly ignored, his advice and services are never sought, and his position becomes purely an honorary one. He is compelled to depend on his private practice; therefore, it sometimes happens that when his services are desired he is out of the county on professional work. In several counties where the Supervisors have shown a disposition to utilize the services of the Surveyor, the results have been eminently satisfactory. The present law should, therefore, be amended by placing the Surveyor under a definite salary, and so regulating his duties that he should be in attendance upon the Supervisors whenever county highway construction is under discussion or consideration. He should be required to present plans, specifications, and estimates for all important road work, to supervise the construction of the same, and, unless he can certify over his signature and seal that the work has been done in accordance with the plans and specifications, no payments should be made thereon.

* * * * *

FAULTY LOCATION OF ROADS.

One of the most glaring defects in the present highway condition is encountered in the matter of the location of the highways. Rarely is an instance found of the proper consideration of the lines along which the road should be constructed. The radically faulty

idea that "roads should lie along land subdivision lines where practicable" has resulted, in almost numberless instances, in locating a road over rolling and hill land, around corners, or through boggy and difficultly drained areas, to the permanent detriment of public rights and convenience. The Bureau has, therefore, constantly insisted upon the introduction of the requirement that *roads must be located upon the best*

grades and alignments which the nature of the country will permit, and considering that the roads are the lines along which, for all time, must be moved the traffic of a growing civilization, this principle should be imperatively enforced.

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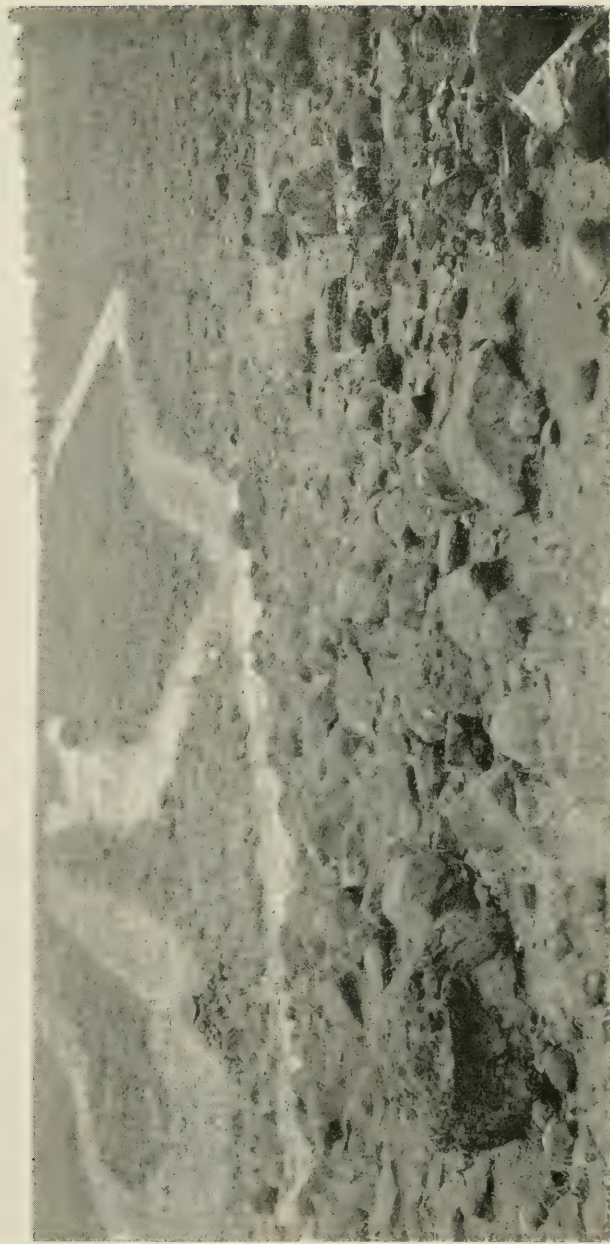
TREE-PLANTING
ALONG ROADS.

The subject of tree-planting along the highways of our State is a matter of no little importance, and has received but scant attention. Injury has been done to highways in parts of the State by planting evergreen trees closely along the roads where no trees at all should have been planted; and again, evergreens have been planted, to the injury of the road during the rainy season, when deciduous trees would have been of advantage. Again, there are no trees at all where one or the other of the two general classes of shade trees would have been of great advantage. The people should bear in mind that evergreen trees can be used only where the rainfall is slight and where even during the winter season the roads are dry most of the time. This is true for the upper part of the San Joaquin Valley, in the drier portions of Salinas Valley, and in parts of Southern California. In other portions of the State deciduous trees of the kinds suitable to the particular conditions of the locality should be planted. In the coast counties, and particularly along roads exposed to moist summer winds, shade trees should not be planted within fifty feet of highways. The planting of trees should be encouraged and aided by local authorities.

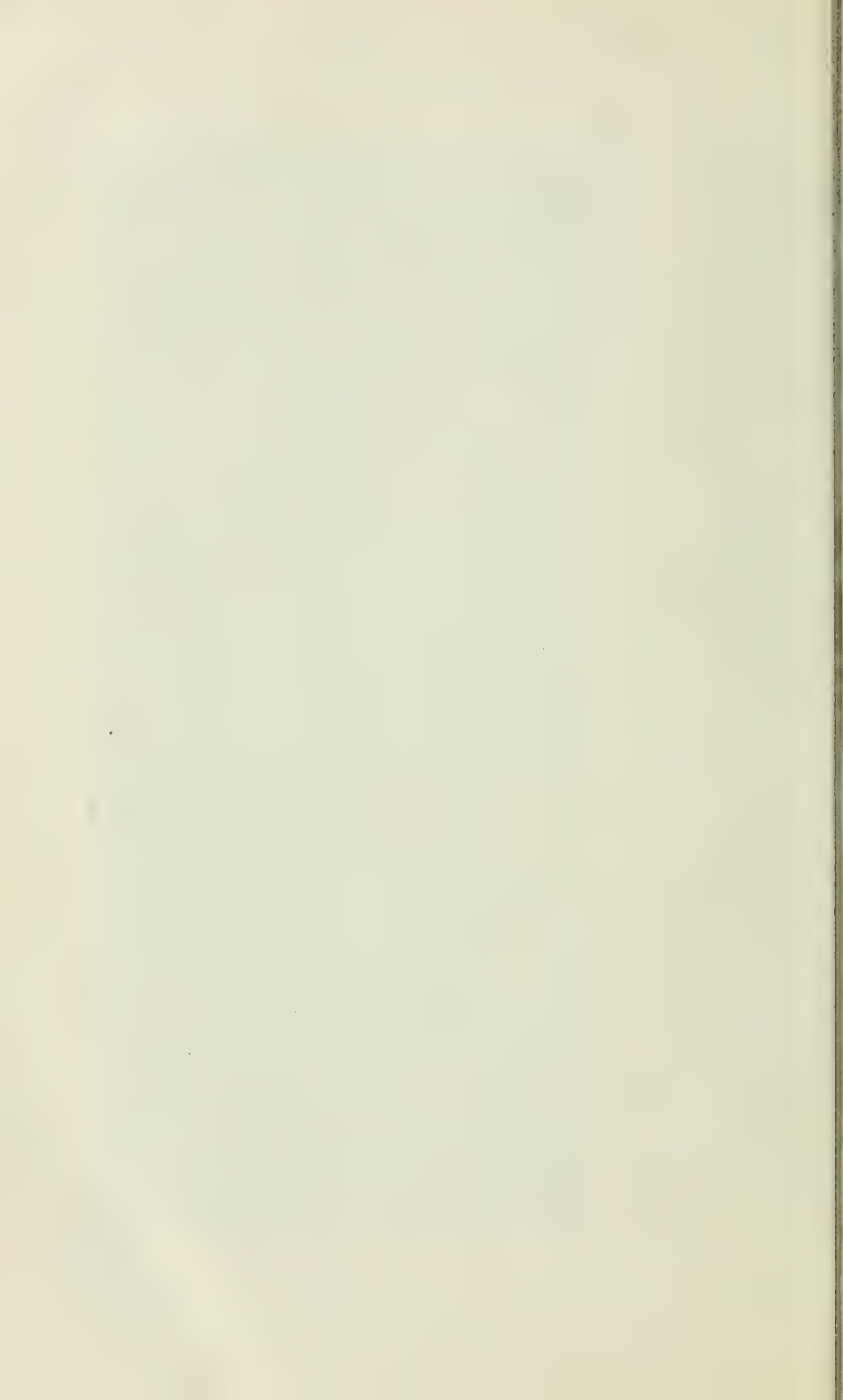
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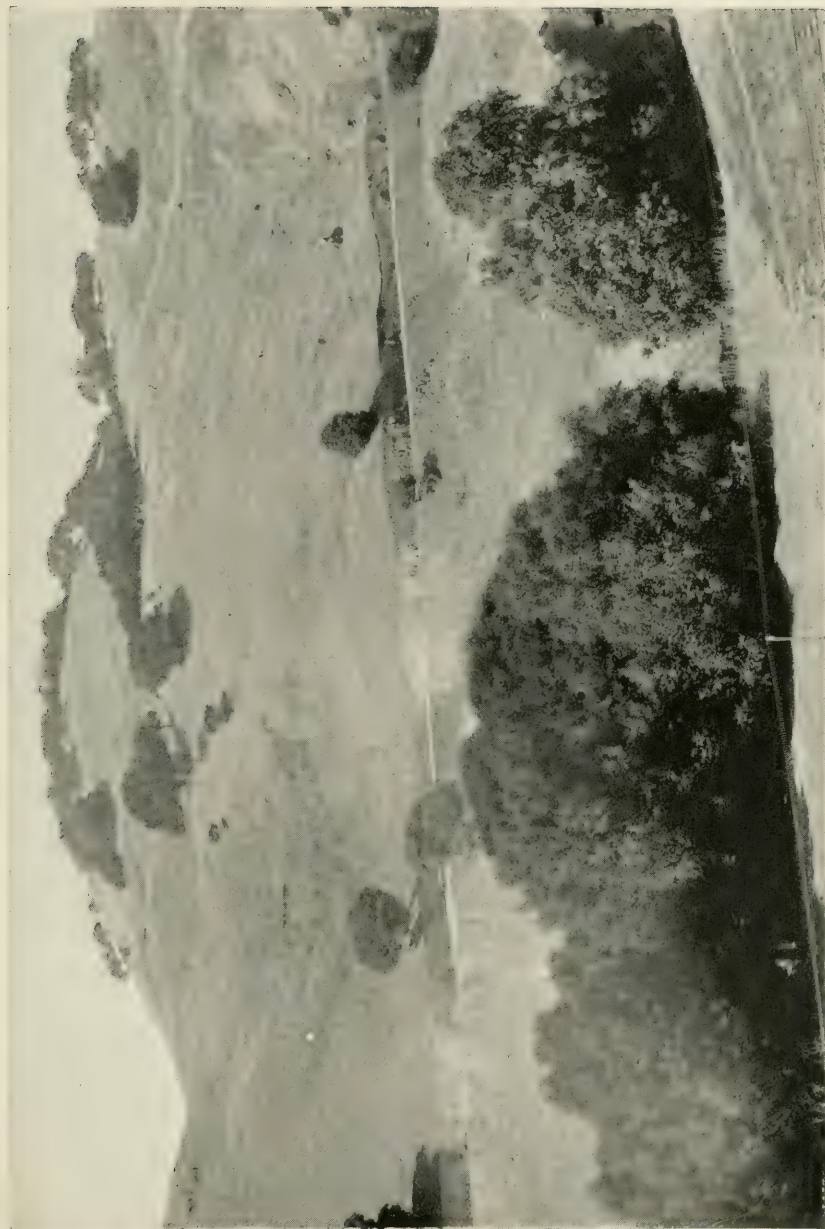
RAIL
FRANCHISES.

The members of the Bureau have so frequently been brought into contact with the subject of laying rails on highways that they feel it a duty to express the results of their consideration of this matter. There are unquestionably instances in which the public interests demand that a franchise be granted for laying rails on highways. Again, there are instances in which the franchise is asked and granted where public interests would probably best be served by a refusal. In this latter case, the franchise is frequently obtained more to control a highway or to protect existing franchises from competition than to serve public interests. In either case, the rights of the public are ruthlessly overridden by the construction of a rail line in such a manner as to inconvenience or endanger the use of any other vehicle than those designed for rail traffic. The guarding of this interference with common traffic should be very thorough. The individual or corporation to whom a franchise is granted should be compelled to put the rails in that position which should least interfere with traffic, and should further be required



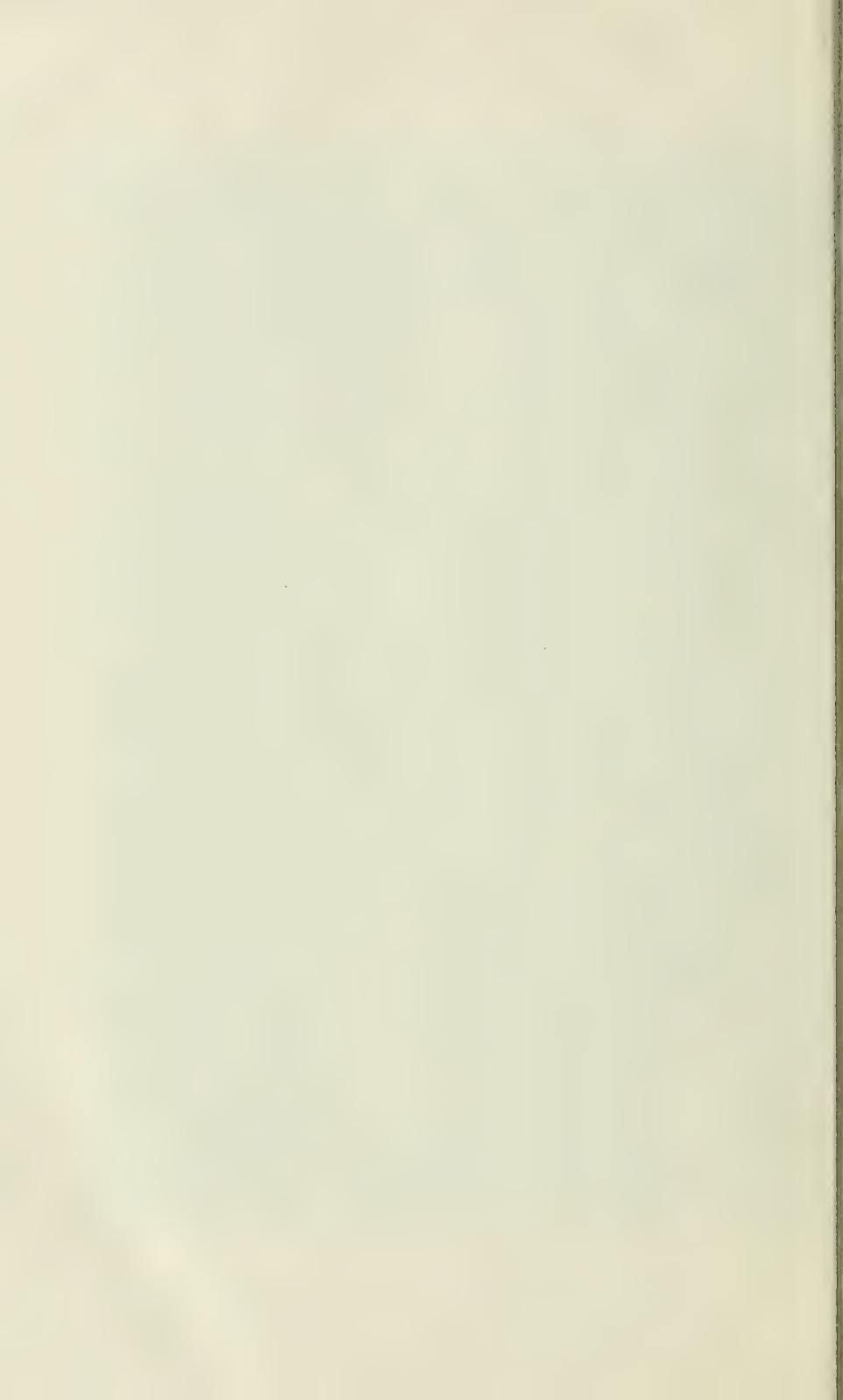
1. TYPE OF ROAD CROSSING A LAVA PLAIN.—Five consecutive roads have been built across this lava plain in Tehama County. Four of these are seen in the foreground. A well-constructed macadam road was being built at the time of the visit of the Commissioners, and cost less than the five worn-out roads. A portion of the macadam road is seen on the extreme right.
[Photograph by Bureau of Highways.]





8. TYPE OF WELL-LOCATED WELL-CONSTRUCTED ROAD IN ROLLING COUNTRY.—Maximum grade, seven per cent.

Photograph by Bureau of Highways.]





7. TYPE OF WELL-LOCATED, WELL-CONSTRUCTED MOUNTAIN ROADWAY—Showing dry-masonry retaining wall.
[Photograph by Bureau of Highways.]



to use the form of rails and ties which would permit the wheels of other vehicles to pass freely along or over them. Violations of these fundamental requirements should result in a forfeiture of the franchise, and the Bureau recommends the passage of the laws necessary to guard the public rights in these important particulars.*

* * * * *

RESUME OF REPORT.

Such is, in as concise a form as is possible, the report of the Bureau of Highways. Brevity has been aimed at (for volumes have been and might be written on this subject), in the hope that the matter therein contained will receive the careful consideration of the great number of people who have manifested their interest in the work of the Bureau, as well as of taxpayers and citizens generally and of the press throughout the State. If a better plan can be offered, the Bureau will gladly aid any movement for its adoption, but at this writing the system herein recommended seems to meet the requirements completely and with the least possible friction and revolution.

The "Good Roads" movement has made rapid strides in California, and has now reached what may be termed the critical point. It must either continue to the logical outcome of this agitation, which will cause California to rank among the foremost States in the Union and among the most progressive localities of the world in highway matters, or it must almost completely retrograde, to be revived, perhaps, in several decades from now by succeeding enthusiasts who will recognize the necessity for good roads. The plan presented has not been hastily evolved; it has been carefully considered, discussed, and digested, and in the opinion of the Bureau represents the best solution of the problem which confronts California.

That the substitution of a definite system for the present irrational, illogical, and slipshod methods is necessary cannot be denied. The observations of the Bureau, the studies made of the conditions peculiar to California, the investigations into the methods in vogue in other States and other countries, the suggestions received from others who have given careful attention to the question in California—all point to the necessity for the adoption of such a plan as that outlined by the Bureau.

The classification of the roads of the State into, first, State Highways, maintained and constructed by the State under the direction of a

* "Both in cities and on county roads the surface railways, whether actuated by horse-power or electricity, devastate the highway, using an easement for a right of way on the roads and streets with a haughty disregard of the rights of others that should not be allowed if they were held in fee. In spite of the low freight rates on railroads and watercourses, this country has been injured, and to some extent impoverished, through the high cost of transportation on country roads, consequent upon their generally wretched condition."—E. P. NORTH, M. Am. Soc. C. E., in *American Society of Civil Engineers Proceedings*, Vol. XXII, No. 9, November, 1896.

trained body of expert road-builders, serving the needs of each characteristic industry of the State and advancing the interests of the entire State; second, County Thoroughfares, constructed and maintained by the county under the direction of the Supervisors and County Surveyor, who should be a trained road-builder; third, District Roads, constructed and maintained by the people of particular localities to meet the needs of their district, will result in a system, broad and definite, meeting all present requirements, and still sufficiently elastic to meet all future requirements. This, together with the inauguration of the minor recommendations, such as the adoption of a wide-tire ordinance, construction of permanent bridges and culverts, rational methods of tree-planting, business-like system of keeping accounts of moneys expended on roads and preserving records, economical administration of highway funds, the enlargement of the scope of the work of the County Surveyor, and the vigorous enforcement of the highway laws now in force, would tend to make this Golden State the ideal highway community of the world.

APPENDIX A.

In perusing the reports here made on each county, it will be found that substantially the same facts are repeated for different counties. This is due to the fact that it was determined to consider the affairs of each county individually, and frequently the same conditions and suggestions apply to a number of counties in the same belt.

ALAMEDA COUNTY.

Organized: 1853.

Area: 840 square miles.

Visited: July 17, 1895, by Commissioners Manson and Irvine; September 22, 1896, by Commissioners Manson and Maude.

Mileage: 453.

Improved: A few miles macadamized within past two years; 201 miles graveled; 60 miles sprinkled.

Title and Records: No deeds to rights of way are secured, and there are consequently no records to the county's rights to same. Whenever new roads are accepted, they are surveyed and recorded; all but a few laid out in 1852 are recorded. A road register, consisting of a transcript of the minutes of the Board of Supervisors, is kept. In laying out new roads, maps and notes are filed with the County Clerk and Surveyor.

Manner of Construction and Maintenance: By day's labor.

Accounts: Impossible to ascertain exact amount of expenditures on particular work.

Raising Money: By direct taxation on outside property and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	35	\$101,845 74
1894	35	99,239 60
1893	35	100,416 48
1892	30	87,016 60
1891	30	83,674 87
1890	30	78,430 55
1889	30	75,887 52
1888	30	75,512 76
1887	30	61,626 14
1886	25	50,201 52
Total		\$813,851 78

Alameda County fronts the Bay of San Francisco on its western shore for a distance of 36 miles. It is divided into two characteristic districts: first, the westerly bay slope, comprising rolling, level, and salt-marsh

land, subject to the climatic influences of the bay; and second, the mountain, rolling, and valley lands lying within the Coast Range, and subject to greater variations of temperature and moisture.

The elevations range from tide level to about 4,000 feet; the gently sloping plain at the west base of the Coast Range varies in width from 2 to 10 miles, and is watered by numerous streams, which flow for some seven or eight months each year. Water for road-sprinkling can be obtained only in moderate amounts, and at considerable expense.

The county is important geographically, as through it must pass at least two important highways. The lowest pass through the Coast Range, except the tide-level gap at Carquinez Straits, fixes the location of a road through Livermore Valley and Pass. The concentration of population and wealth in and about Oakland determines the necessity for a north and south highway.

The present road system is extensive, but for many years past has not met the requirements of the growth of industrial wealth. Improvements in the mode of construction of roads and road structures were noted in the second visit of the Bureau, notably in the building of permanent concrete bridges and culverts.

The mountains and hills of the county are principally sandstone and shale, unfit for road-metal. Gravel and cobblestones of excellent quality abound in many of the creeks, and, if screened and the coarser portion crushed, would make good road-metal. Excellent volcanic and metamorphic rocks outcrop at numerous localities; those back of Oakland and Fruitvale are utilized.

ALPINE COUNTY.

Organized: 1864.

Area: 575 square miles.

Visited: August 16, 1895, by Commissioners Manson and Irvine; August 6, 1896, by Commissioner Manson.

Mileage: 54.

Improved: No miles macadamized; no miles graveled; no miles sprinkled; 54 miles graded; toll roads, 36 miles.

Title and Records: Title generally rests upon occupancy. When new roads are opened the prescribed methods are followed. All roads now recognized and worked as county roads have been such for many years. In 1893 the Board of Supervisors declared the above 54 miles county roads, and, by order, abandoned 36 miles previously considered county roads. One road abandoned in 1893 was improved in 1896 without proceeding to re-acquire title, or to annul order of 1893.

Manner of Construction and Maintenance: By day's labor. Road locations have been changed by the Road Commissioner when, in his judgment, the road could more easily be maintained.

Accounts: By entry of warrant and filing voucher; warrant drawn in favor of party doing work, but no mode of ascertaining the cost of any particular road.

Raising Money: Property and poll tax, and license tax on sheep.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	45	\$1,144 57
1894 -----	35	1,018 90
1893 -----	20	791 68
1892 -----	20	672 18
1891 -----	20	924 94
1890 -----	20	818 17
1889 -----	8.8	423 46
1888 -----	8	386 75
1887 -----	8.2	410 21
1886 -----		
Total -----		\$6,590 86

Alpine County lies upon and between the crest and spurs of the Sierras, in the eastern and central portion of the State. The mean elevation is greater than that of any other county, being about 7,500 feet, with extremes of 11,300 to 5,000 feet.

Under present conditions, the settled portions of the county are tributary to Nevada, but with well-constructed roads can be brought more closely in touch with California.

The features of the county are rugged in the extreme, but many fertile valleys lie along the drainage lines. The county is abundantly watered. Snow falls to great depths over its entire area during winter, and remains during the summer upon the more elevated peaks. Summer rains are not uncommon, and are at times severe enough to wash heavy boulder deposits across roads. This is particularly noticeable over areas which have been denuded of timber and vegetation.

The rocks are principally granitic and volcanic; the latter are abundant and hard, making good road material.

The county is the least in wealth, population, and mileage of roads.

Water-supply for road-sprinkling could be developed from springs and streams where necessity therefor arises.

AMADOR COUNTY.

Organized: 1854.

Area: 568 square miles.

Visited: August 21, 1895, by Commissioners Manson and Irvine; June 13, 1896, by Commissioner Manson.

Mileage: About 400.

Improved: No miles macadamized; 8 miles graveled; cannot ascertain either miles sprinkled, or miles graded.

Title and Records: The title rests upon old location and possession. Rights recently acquired follow the mode prescribed by law. The proportion of rights of way which are legally vested and recorded is not known, nor can it be ascertained without systematic resurvey of existing roads, as many have been shifted from the old locations, to which old location title has been forfeited by abandonment.

Manner of Construction and Maintenance: By day's labor.

Accounts: Filing vouchers and warrants drawn in favor of party doing work. No mode of ascertaining exact locality and extent of work done.

Raising Money: Property and road poll tax.

(Note: Data for Amador County is very meager, as neither the County Clerk nor County Surveyor made satisfactory replies to questions submitted.)

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	36½	\$16,070 05
1894 -----	50	20,168 50
1893 -----	40	18,899 51
1892 -----	35	18,179 65
1891 -----	30	17,530 90
1890 -----	36	18,801 18
1889 -----	26	13,563 11
1888 -----	22	12,003 22
1887 -----	29	12,815 16
1886 -----	31.5	12,795 25
Total -----		\$160,826 53

(These figures include both road and bridge taxes.)

Amador lies upon the west slope of the Sierras, between the south fork of the Cosumnes and the north fork of the Mokelumne River. These streams drain the greater portion of the county, a small part of the lower portion being drained by foothill creeks between the larger streams. The entire area is rolling and mountainous, with the exception of a few small valleys, and rises from the base of the foothills, at an elevation of 500 feet, to the crest of the Sierras, 9,500 feet above tide.

Throughout the county good road-metal can be obtained. The rocks are diversified, and embrace the entire range between the granites and lavas of the summit and the slates and gravels of the foothills.

The greater portion of the county is of slate formation, which makes an uneven surface for roads, but, when covered with macadam or gravel, makes a good foundation.

The average rainfall varies from 15 inches in the foothills to 60 inches at the summit. Snow rests upon the upper peaks until late in summer.

The roads are nearly impassable in winter, as they are badly located and drained, steeper than necessary, and made of earth, repaired with brush and dirt. The relocation on practical grades, and proper drainage and surfacing of the roads, are the only remedies which can accomplish real good.

BUTTE COUNTY.

Organized: 1850.

Area: 1,764 square miles.

Visited: November 1, 1895, by Commissioners Manson and Irvine; August 30, 1896, by Commissioner Irvine.

Mileage: 1,200.

Improved: No miles macadamized; 100 miles graveled; 20 miles sprinkled; 600 miles graded.

Title and Records: Title to at least 75% of the mileage is defective; the remaining titles may be classed as good. Title secured by purchase, condemnation, and grant, and by declaration of Board of Supervisors. Records are in poor condition; no reliable information could be obtained.

Manner of Construction and Maintenance: By day's labor, under personal supervision of Road Commissioners and their deputies.

Accounts: Are kept against eighteen road districts.

Raising Money: By direct tax on all outside property and by road poll tax. Transfers also made from general road fund.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	34	\$61,019 75
1894	29	53,153 13
1893	25	52,380 00
1892	25	54,949 29
1891	25	54,975 68
1890	20	57,983 39
1889	25	65,250 41
1888	27.2	61,148 93
1887	35.2	62,381 84
1886	32.2	57,992 76
Total		\$581,235 18

Butte County is naturally divided into two districts. Two fifths lie in the valley of California and the remainder extends easterly toward the crest of the Sierras. The valley portion has a general elevation of about 50 feet, rising toward the foothills. The mountain portion rises to elevations of from 7,000 to 8,000 feet, and is intersected by the Feather River and its tributaries, and by Butte, Chico, and several smaller creeks. Much of the valley portion is fertile loam, while to the west lie adobe and swamp lands, subject to inundation in winter.

Abundance of water exists for road-sprinkling, as sub-surface water is reached by shallow wells.

Road materials are abundant in the lavas and metamorphic rocks of the mountain portion, and in the adjacent gravelly loams; through the tule and adobe lands road materials are scarce, except where hardpan can be reached, which, when properly utilized, makes an excellent road surface.

This county maintains quite an extensive system of mountain roads

running easterly into Lassen, Plumas, and Modoc, the cost of maintenance of which could be greatly decreased by relocating them upon proper grades, so that heavier loads could be hauled, and the industries more extensively developed.

The Commissioners are pleased to note the permanent improvements that have been carried out since their first visit. On one of the main roads, cuts and fills have been made, reducing the grade materially; a large stone culvert has been built, and the cross-section of the roadbed has been properly constructed. While there are only about 20 miles of roads and streets sprinkled, the results are so gratifying that a determined effort will be made to erect a permanent water system for watering one of the main highways next season.

The average rainfall is 25 inches, usually precipitated during the seven months beginning in October and ending in April.

CALAVERAS COUNTY.

Organized: 1850.

Area: 890 square miles.

Visited: August 22, 1895, by Commissioners Manson and Irvine; June 16, 1896, by Commissioner Manson.

Mileage: 470.

Improved: All more or less; no miles macadamized; no miles graveled; no miles sprinkled; 300 miles graded.

Title and Records: For the past ten years title has generally been obtained in the manner prescribed by law, but the records are not perfect. Early rights of way rest upon usage. The prescribed legal mode is followed in opening roads. Alterations are made by petitioners, who generally give deeds to right of way and open the road. The road book contains general record of new roads, but no surveys or plats of old roads are recorded. Maps filed, but not duly recorded.

Manner of Construction and Maintenance: By day's labor. Contract system of maintenance advertised for, but bids rejected as too costly.

Accounts: Are badly kept. Warrants are sometimes drawn for road work by and in the name of the Road Commissioner, and sometimes in favor of the party doing the work. No mode of ascertaining the exact location and extent of work done.

Raising Money: By property and poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	25	\$14,063 55
1894	24	15,403 49
1893	22	13,093 56
1892	25	11,217 40
1891	21	9,815 93
1890	18	8,570 59
1889	15	7,722 31
1888	15	7,847 20
1887	16	8,065 96
1886	30	13,103 25
Total		\$108,943 24

This county extends from the foothills to the crest of the Sierras, rising from the floor of the valley to about 9,500 feet, and lying between the Mokelumne and Stanislaus rivers, whose tributaries drain nearly the entire county.

There is an abundance of road-building material in the volcanic and metamorphic rocks; but the important roads lie along the slate belt, and are difficult and costly to operate and maintain by reason of faulty location and drainage and the attempt to maintain the road surface on the slate, which varies in hardness.

Water could be secured for the main roads from streams, springs, and ditches; but the energies of the county should be devoted to the economic reconstruction of roads on proper lines.

The total expenditure upon the roads in this county since its organization is estimated at \$450,000.

COLUSA COUNTY.

Organized: 1850.

Area: 1,080 square miles.

Visited: November 11, 1895, by Commissioner Irvine; June 29, 1896, by Commissioner Irvine.

Mileage: 566.

Improved: No miles macadamized; 280 miles graveled; no miles sprinkled; 420 miles graded.

Title and Records: To about one fourth of all the roads the title is perfect, but when roads are condemned, no deeds are taken. The balance of the roads are used by sufferance. Title acquired by purchase, condemnation, and grant. Records are in good condition, and particular attention is paid to the mapping and filing of same.

Manner of Construction and Maintenance: Construction mostly by contract, under supervision of County Surveyor, and has proved very economical. Maintenance by day's labor.

Accounts: Only five districts, each being kept separately.

Raising Money: By direct tax on all outside property and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	28	\$29,108 52
1894	25	32,247 31
1893	28	38,747 52
1892	30	38,321 61
1891	40	49,602 20
1890	40	94,458 01
1889	30	69,964 48
1888	30	69,890 32
1887	30	66,120 00
1886	35	76,854 00
Total		\$565,313 97

Colusa County extends from the crest of the westerly spur of the Coast Range westward to the Sacramento River and Butte Creek, one third of the area being mountainous and rolling. It has a frontage of

50 miles on the navigable portion of the Sacramento River. Water can be obtained from surface wells through the valley portion, and from streams and springs in the foothills, for important roads. There is gravel in all but the fourth road district. The roads are easily maintained in the valley if well located and drained, but are difficult and costly over areas subject to inundation.

(The Bureau is indebted to Mr. J. R. Price, C.E., recently County Surveyor of Colusa, for accurate data as to mileage of roads given above.)

CONTRA COSTA COUNTY.

Organized : 1850.

Area : 750 square miles.

Visited : July 19, 1895, by Commissioners Manson and Irvine; September 24, 1896, by Commissioners Manson and Maude.

Mileage : 450.

Improved : No miles macadamized; 126 miles graveled; $7\frac{1}{2}$ miles sprinkled; 425 miles graded by the county and by private subscription.

Title and Records : No records, and but few deeds, available. No form of road book is kept. Some old records are supposed to exist, but they are stored away unindexed. Title is obtained according to Code now. In the past, roads were declared public highways simply by ordinance. Maps accompanying reports of viewers are recorded.

Manner of Construction and Maintenance : Generally, by day's labor. Some mountain roads have been built by contract.

Accounts : Not segregated and itemized so that the cost of any particular road can be ascertained.

Raising Money : By direct taxation on outside property, by road poll tax, and by transfer of funds from general to road fund.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	30	\$55,228 93
1894	30	45,787 24
1893	32	52,546 83
1892	32	50,721 06
1891	38	61,447 14
1890	34	53,420 56
1889	24	37,768 37
1888	27	44,100 62
1887	29	45,893 98
1886	30	43,700 44
Total		\$490,615 17

Contra Costa County lies just south and east of the bays of San Pablo and Suisun and east of the summit of the Coast Range. Three quarters of the county is mountain and rolling land, and the remainder is valley and swamp.

The principal features are the Alhambra Valley, lying between the spurs of the Coast Range, and the isolated peak, Mount Diablo, rising some 3,850 feet above tide level.

The rock of the county is principally sandstone and shale unfit for road-metal, but at the following localities road-metal exists: Gravel in Marsh, Concord, and other creeks; limestone, near Clayton; basalt, east of Concord and 2 miles east of Brentwood; jasper and porphyry in Mitchell Cañon, and decomposed quartz near San Pablo. At many other localities quarries may be developed.

Water is obtainable in most of the valley, and supplies will have to be developed with much care and skill.

The value of bridges and culverts is about \$68,000.

DEL NORTE COUNTY.

Organized: 1857.

Area: 1,546 square miles.

Visited: February 1, 1896, by Commissioner Manson; August 14, 1896, by Commissioner Irvine.

Mileage: 102.

Improved: No miles macadamized; 100 miles graveled; no miles sprinkled; 40 miles graded; redwood puncheon, 12 miles.

Title and Records: Title is complete for the greater portion, being acquired by purchase, condemnation, and grant. Records are in very good condition; most of the roads recorded and filed with the Clerk of the Board.

Manner of Construction and Maintenance: Entirely by day's labor.

Accounts: The county is divided into road districts, and the accounts kept by said districts.

Raising Money: By direct taxation and road poll tax. Special levies have also been made in road districts.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	35	\$6,003 49
1894	40	12,211 04
1893	40	14,877 28
1892	40	10,011 38
1891	40	12,605 97
1890	40	9,222 47
1889	40	7,895 81
1888	40	7,770 73
1887	37	5,516 24
1886	38	5,069 12
Total .....	.....	\$91,183 53

Del Norte is one of the northernmost counties in the State, with a coast-line of 35 miles. It is rolling and very mountainous, only a small percentage being suitable for agricultural products. Immense redwood forests abound throughout the county.

Road-building material is very scarce. Gravel is found only in a few streams, and is difficult to obtain. Trap and basalt are found in small quantities in some portions.

Redwood puncheons for road purposes are used quite extensively, and very successfully. The puncheon type of road serves a useful purpose

in timbered countries, and is built of split and hewn slabs some 8 feet long, 6 inches thick, and of variable width, laid, like the corduroy roads, upon a graded and drained roadway.

Water for sprinkling purposes can be had either by gravitation or pumping.

The mileage of roads, exclusive of toll roads, is small, and most of it difficult to maintain.

The mountain grades are well located, but are subject to slides and washouts, owing to the excessive rainfall, which reaches the enormous amount of 100 inches annually in the extreme northwestern corner of the county. The average rainfall is between 60 and 70 inches, rain falling every month in the year.

EL DORADO COUNTY.

Organized: 1850.

Area: 1,891 square miles.

Visited: August 12, 1895, by Commissioners Manson and Irvine; July 30, 1896, by Commissioner Manson.

Mileage: 896.

Improved: All mileage more or less macadamized; no miles graveled; 5 or 6 miles sprinkled; $3\frac{1}{2}$ miles graded.

Title and Records: The title to roads is good. They were surveyed and recorded in 1893. Titles are obtained and deeds given, as prescribed by law. The records of all roads are in fair condition, but, in the absence of a prescribed form, and having been made by various officials, are not uniform.

Manner of Construction and Maintenance: Generally by day's labor. Contract system of working roads was tried, and gave good results.

Accounts: Are well and accurately kept by districts and general road fund, but warrants are drawn by and in the name of the Road Commissioner; it is not possible to ascertain where and to what extent work is done.

Raising Money: By property and poll tax, and transfers from other funds to road fund.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	33	\$14,858 20
1894	33	13,554 29
1893	33	15,919 32
1892	35	19,401 33
1891	40	25,133 25
1890	40	13,710 49
1889	20	13,362 50
1888	20	15,430 41
1887	25	14,248 41
1886	25	12,790 09
Total		\$163,408 29

El Dorado County extends from the base to the summit of the Sierras, rising from the floor of the valley of California to elevations of 9,000 to 10,000 feet. It is bounded by the middle and southeast forks of the American and the south fork of the Cosumnes Rivers, whose tributaries drain the county.

The rocks vary in character, extending through the entire range of exposures, from the slates of the foothills to the granites and lavas of the summit. Volcanic and metamorphic rocks and limestone are abundant throughout the county. The county is well watered, and supplies for road-sprinkling can be developed from streams, springs, and ditches.

The county owns only scrapers for road-building, and maintains no guide-posts. Road-sprinkling is done by contract during the months from July to October, inclusive, to the extent of $3\frac{1}{2}$ miles. The district pays \$25 per month, and the remainder is subscribed by residents. The water is supplied by gravity flow from mining ditches.

The value of bridges in the county is \$73,000.

El Dorado County has taken advanced steps to abandon expensive and difficult grades, and relocate the roads along economical lines. On the road between Placerville and Coloma the old faulty location was abandoned, and the road relocated upon proper lines. The road from Placerville to Grizzly Flat has been similarly improved. Grades ranging from 20% to 25% (3 inches to the foot) have been changed to a $6\frac{2}{3}\%$ grade ($\frac{3}{4}$ inch to the foot). From Placerville to Weber Creek corresponding improvements have been made, changing 25% grades to $8\frac{1}{2}\%$. These changes have all given satisfaction and benefit, and, consequently, many others are contemplated.

A systematic plan of grades and alignments, upon which all work could be continuously directed, would greatly advance the ultimate interests and wealth of this progressive county.

The public rights were, however, permitted to suffer in the relocation of the road entering Placerville, which relocation was necessitated by the extension of the railroad into the town. The road should follow a widened roadbed instead of over increased grades upon improper location.

FRESNO COUNTY.

Organized: 1856.

Area: 5,940 square miles.

Visited: February 21, 1896, by Commissioners Irvine and Maude; July 11, 1896, by Commissioner Manson.

Mileage: 1,435, of which 1,235 are in the valley, and 200 in the mountains.

Improved: No miles macadamized; no miles graveled; $6\frac{1}{2}$ miles sprinkled; 200 miles graded.

Title and Records: The titles to rights of way are in good shape, and recorded as given below. Road records consist of (1) a bound volume showing number of road, termini, page and number of road register, and, on opposite page, a sketch of road alignment, scale 2 inches to 1 mile; (2) a road register giving the data required by law; (3) an index to abstracts of road deeds; (4) abstract of road deeds, in two volumes.

Manner of Construction and Maintenance: Maintenance, by day's labor; construction, over \$200 by contract, with excellent results.

Accounts: Fairly well kept, but do not show exact locality and amount of work done. Payments made by warrants drawn in favor of parties doing work.

Raising Money: By property and poll tax. Road bonds were issued in 1878, 1879, and 1880, for the redemption and interest of which \$1,050 is collected annually.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	25	\$55,769 78
1894	16	49,927 29
1893	32	38,910 10
1892	25	91,531 06
1891	25	90,612 91
1890	22	70,533 22
1889	16.8	48,381 70
1888	14.6	42,223 34
1887	20	31,085 09
1886	23	34,534 77
Total		\$603,514 26

Fresno County extends from the crest of the Coast Range to the crest of the Sierras; one half the area lying in the valley of California, which the county crosses near its widest place. The climatic and physical features, therefore, present the widest range.

Good road material exists in all parts of the county. Through the valley, hardpan, gravel, sand, and clay can be obtained. In the mountain portion, hard volcanic and metamorphic rocks exist at numerous localities.

Water for road-sprinkling can be obtained from wells and ditches, and road-sprinkling has been inaugurated around Fresno. Road-sprinkling is done by a new system, which has not yet proven satisfactory as to method.

The county owns a ten-ton road-roller, scrapers, plows, shovels, picks, etc., but no official list of property is kept.

Improved methods of road location, construction, and maintenance are being introduced.

The value of bridges in the county is about \$250,160.

(The Bureau is indebted to the County Surveyor, Mr. George L. Hoxie, C.E., for accurate and extended data.)

GLENN COUNTY.

Organized: 1891.

Area: 1,248 square miles.

Visited: November 9, 1895, by Commissioner Irvine; July 8, 1896, by Commissioner Irvine.

Mileage: 440.

Improved: No miles macadamized; 188 miles graveled; no miles sprinkled; 200 miles graded.

Title and Records: Title to all new roads is perfect, but those used before the county was separated from Colusa County are defective. Title is secured by purchase, condem-

nation, and grant. Records are in good condition. Road register well written up, and all new roads mapped and recorded.

Manner of Construction and Maintenance: By day's labor, under supervision of Road Commissioners, and, in many instances, by contracts.

Accounts: Are kept under supervisory districts, as they are not subdivided.

Raising Money: By direct taxation and road poll tax.

Amount Expended in Past Five Years.

Year.	Rate in Cents per \$100.	Amount.
1895	30	\$27,749 14
1894	19.5	21,575 26
1893	19.4	23,078 19
1892	15.6	19,565 81
1891	21	22,964 79
Total .....	.....	\$114,933 19

Glenn County lies on the west side of the Sacramento River, near the head of the valley of California, and extends west to the summit of the Coast Range. The rolling and mountainous land is about equaled by the valley area. The crest of the Coast Range, on its western border, rises to 7,000 feet above tide.

Road-building material of almost every description is found in different portions of the county. Gravel of the best quality abounds in all creek-beds, and the supply is inexhaustible, while deposits of the same quality are scattered throughout the county. In the foothills and mountains trap and basalt are plentiful.

Water for sprinkling may be obtained from wells and also by gravitation.

Though the roads in this county are subject to overflow from the mountain streams, they are in excellent condition, because they are graded on a level with the surrounding country, and offer very little resistance to the receding water. Improvements of a permanent nature are being made all the time.

Since the first visit of the Commissioners the recommendations presented to the Board of Supervisors have been carried into effect. Plenty of vitrified pipe of assorted sizes is on hand, and all wooden culverts are being replaced with the pipe as soon as they need repairing. The Board of Supervisors has also purchased a road-roller, and are enabled, with its use, to do much better and more permanent work.

Bridges have been a source of great expense in this county, and there are several good structures. The value of the bridges and culverts is approximately \$125,000.

The maximum rainfall, amounting to over 30 inches, is reached in the mountains, causing the streams to rise rapidly, notably Stony Creek.

Great damage results to bridging and highways. The rainfall in the valley portion of the county averages 12 inches annually.

HUMBOLDT COUNTY.

Organized: 1853.

Area: 3,507 square miles.

Visited: January 29, 1896, by Commissioner Manson; August 18, 1896, by Commissioner Irvine.

Mileage: 1,020 miles roads; 500 miles trails.

Improved: No miles macadamized; 160 miles graveled; 4 miles sprinkled; 700 miles graded; redwood puncheon, about 10 miles.

Title and Records: Title is very incomplete, and not more than 25% of the mileage of roads is deeded and recorded. It is secured by purchase, condemnation, and grant. Records of late years are well preserved, but of the earlier roads of the county many records are missing. Road register in fair condition.

Manner of Construction and Maintenance: By day's labor principally, and in isolated instances by contract.

Accounts: Are kept by supervisorial districts, as they are not subdivided into road districts.

Raising Money: By direct tax on outside property and by road poll tax. Auditor's books also show transfers from county general fund to road fund. \$25,000 bonds issued in 1893, 7%, twenty years.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	40	\$78,392 63
1894 -----	40	82,044 26
1893 -----	40	107,255 63
1892 -----	40	67,382 02
1891 -----	40	79,047 36
1890 -----	25	80,108 76
1889 -----	25	59,218 01
1888 -----	25	53,480 24
1887 -----	28	60,759 71
1886 -----	30	38,375 35
Total -----		\$706,063 97

Humboldt County lies just below Del Norte, on the coast, and joins Mendocino on the south. The surface is in general extremely mountainous, with some large, level valleys interspersed in different portions.

Material for road-building purposes is scattered throughout different parts of the county, and is plentiful. Gravel is found in abundance in all the valleys, while trap, basalt, limestone, and a hard sandstone are abundant. The last named is native rock, while the others are of glacial deposit.

As in Del Norte County, redwood puncheons are used on some roads, and give good results, especially in low or springy ground.

Water for sprinkling can be obtained from springs and mountain streams by gravitation, and is available in the lower valleys by wells and pumping.

The mountains are extremely steep and rugged. The roads are poorly located, and, owing to the enormous rainfall, are subjected to slides and washouts, which make their maintenance expensive. All the larger streams are well bridged, and the total cost of these bridges and culverts has been \$137,850.

Much improvement can be noted since the Commissioners' first visit to this county. A system of sprinkling has been inaugurated, and is being increased as rapidly as means will permit. It was an innovation in road work, and had many opponents, but the people are well pleased with the "experiment," as they term it, and are demanding that a large portion of the funds be used for this purpose.

The City of Eureka has purchased a 30,000-lb. steam road-roller and a rock-crusher, and is building some excellent streets. This should serve as an object-lesson for the Board of Supervisors.

The average rainfall is about 40 inches.

INYO COUNTY.

Organized: 1866.

Area: 10,224 square miles.

Visited: February 12, 1896, by Commissioner Manson; August 25, 1896, by Commissioner Manson.

Mileage: 458.

Improved: No miles macadamized; no miles graveled; no miles sprinkled; cannot ascertain number of miles graded.

Title and Records: The title to old roads rests upon usage. New roads are opened in accordance with the methods prescribed by law; alterations and closings in the same manner. Records consist of index and separate record book of all road proceedings, giving the meager data required by law.

Manner of Construction and Maintenance: By day's labor.

Accounts: Claims are presented and warrants drawn by and in the name of the Road Commissioner, with verified claims attached of each individual doing work or furnishing materials; no mode of ascertaining exact locality and extent of work.

Raising Money: By property and poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.			Amount.
	Bridge.	Road.	Total.	
1895 -----	1.5	13	14.5	\$4,699 98
1894 -----	4	22	26	5,081 00
1893 -----	5.4	20	25.4	4,825 26
1892 -----	5	20	25	4,275 59
1891 -----	5	20	25	4,241 82
1890 -----	10	20	30	4,749 99
1889 -----	6	12	18	3,080 87
1888 -----	12	12	24	3,784 66
1887 -----	--	--	18	2,530 65
1886 -----	--	--	12	1,707 81
Total -----				\$38,977 63

Inyo County extends from the crest of the high Sierras eastwardly to the State line. The principal features are four nearly parallel ranges of mountains, rising abruptly to elevations of from 10,000 to 15,000 feet. Between these ranges are Owens River, Saline, and Death valleys, having general elevations of 4,000, 1,000, and 300 feet above sea-level, the latter valley containing areas depressed below sea-level by several hundred feet.

The mean annual rainfall is less than 2 inches, so that water, except at the easterly base of the Sierras, is scarce.

The rocks of the county furnish excellent road-building materials in abundance, and much of the soil is of a gravel formation, giving a fair road surface. Many stretches lie through sandy soils, which would be difficult and costly to improve.

The roads crossing Owens River Valley need grading and draining; and in certain alkaline, clayey soils, a coating of sand would greatly improve them. These roads would be greatly improved by sprinkling.

The county owns two \$500 road-graders; plows and scrapers are owned by the road districts; but no list of county and district property is kept.

KERN COUNTY.

Organized: 1866.

Area: 8,159 square miles.

Visited: February 12, 1896, by Commissioners Irvine and Maude; July 21, 1896, by Commissioner Manson.

Mileage: 1,023.

Improved: $\frac{1}{4}$ mile macadamized; 2 miles graveled; 2 miles sprinkled; 341 miles graded.

Title and Records: The title to 65% to 70% of the roads is good; to the remainder it rests upon occupancy. The titles are now obtained by deed from non-consenting owners, following the prescribed provisions of the Code. Records are in fair condition, and cover the general form required by law, supplemented by maps filed in the Surveyor's or Clerk's office.

Manner of Construction and Maintenance: By day's labor. Contract system tried in construction, but discontinued.

Accounts: Are not segregated nor itemized to show results of expenditures. Labor certificates are assigned to foremen; warrants drawn in their favor.

Raising Money: By property and poll tax. \$157,000 bonds issued in 1894, realizing \$157,942. Transfers also made from contingent and other funds.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.			Amount.
	Bridge.	Road.	Total.	
1895	2	16	18	*\$64,791 58
1894	3	12	15	200,523 05
1893	6	22	28	27,950 79
1892	3	22	25	30,614 95
1891	3	23	26	30,345 91
1890	5	23	28	34,351 74
1889	5	20	25	41,385 07
1888	11	20	31	25,766 51
1887	20	18	38	21,633 93
1886	--	18	18	17,663 25
Total				\$495,031 78

* This sum includes \$21,553 48 bond fund in treasury, available fiscal year 1895-96.

Kern County lies across the southern end of the great valley of California, and extends from the crest of the Coast Range across the Sierras and into the arid lands east and south of that range. About one fourth of the county is nearly level valley land; the remainder is rolling and rugged. Within the limits of the county are four important passes: Walkers, Tehachapi, Tejon, and San Luis, the former offering the best route to the southeast, the second and third to the south, and the latter to the northwest, out of the great valley of California.

There is an abundance of road-building material in the county; the alkaline clays and adobes, when mixed with coarse sand in proper proportions, make an excellent road surface. Hardpan is available over large areas of the valley, and volcanic and metamorphic rocks in the mountains. Fine bitumens and asphalts occur in the western part of the county.

Water is naturally scarce, but the system of irrigation has introduced a gravity and artesian supply over the settled areas of the county, which supply can be augmented by additional surface and artesian wells.

There are about 155 bridges in the county, ranging from 25 to 960 feet in length. The records do not show the cost of constructing or of maintaining them. One, in the limits of Bakersfield, across an irrigation canal, was originally built and maintained as a wooden structure. It cost about \$600 to construct and \$200 a year for plank; labor not ascertainable. This bridge was recently replaced by a brick inverted siphon. This structure cost \$1,300, and needs no repairs. On the basis of a 6% investment, and taking only the cost of lumber at \$200 per year, the perishable wooden structure represented an outlay of \$3,333 33. The wastefulness of this type of structures becomes apparent.

The county has an erroneous method of paying for road work. The claims of parties doing work are assigned to the foreman, who draws the warrant and discharges the claim. This system has been criticised locally, but no remedy seems to have been made. Excessive costs for

surveys have also been a source of extravagant outlay. When necessary to secure a thoroughly correct location and exact data for contracts, no outlay is more economical than that expended in judicious surveys, but this, like other public expenditures, is liable to abuse.

The county and several districts own a light road-roller and road-grader. Several miles of road adjacent to Bakersfield are sprinkled, toward which the county funds contribute \$75 per month, the remainder being made up by subscription.

KINGS COUNTY.

Organized: 1891.

Area: 1,257 square miles.

Visited: February 17, 1896, by Commissioners Irvine and Maude; July 14, 1896, by Commissioner Manson.

Mileage: 375.

Improved: No miles macadamized; no miles graveled; no miles sprinkled; number of miles graded, not known.

Title and Records: Titles are those coming from use at organization and upon properly acquired titles since the formation of the county. The mode of acquiring titles to rights of way is that prescribed in the Code. Records consist of (1) road record book, in which are recorded the data prescribed in the Code; (2) a separate road minute book; (3) a road plat book, containing surveys of roads, scale $\frac{3}{4}$ inch to 1 mile.

Manner of Construction and Maintenance: Generally by day's labor.

Accounts: Are not kept by districts, but mainly by filing claim and recording in allowance book, not definite as to exact locality and extent of work done.

Raising Money: By direct property tax only.

Amount Expended in Past Three Years.

Year.	Rate in Cents per \$100.	Amount.
1895	20	\$6,564 45
1894	13	6,476 40
1893	18	7,882 60
Total		\$20,923 45

Kings County lies in the depression of the great valley of California, around and including Tulare Lake. Three fourths of the county is nearly level valley land; the remainder, lying in the western part of the county, and extending to the crest of the Coast Range, is rolling and mountainous.

Road-building materials, except alkaline clays and adobes and sand, are scarce in the valley portions. These, if properly mixed and treated, make good surfaces. In the southwest portion of the county, asphalts and volcanic and metamorphic rocks occur.

As in Tulare County, water is naturally scarce, but an extensive irrigation system renders water available. This supply can be increased by surface and artesian wells.

The county owns two light road-rollers (6 tons), one grader, and a miscellaneous lot of scrapers, etc. No full list of road machinery and tools is kept.

The value of culverts and bridges is \$16,654, upon which is expended in repairs about 16% of their value, or 25% of the gross road revenue. In no county could the use of durable materials, such as salt-glazed sewer-pipe, concrete, or masonry give more beneficial results.

LAKE COUNTY.

Organized: 1861.

Area: 1,332 square miles.

Visited: January 23, 1896, by Commissioner Manson; August 27, 1896, by Commissioner Irvine.

Mileage: 475.

Improved: No miles macadamized; 100 miles graveled; no miles sprinkled; 350 miles graded.

Title and Records: Title to most of the roads is imperfect, but for the past few years an effort has been made to get deeds to the rights of way. It is obtained by declaration, purchase, and grant. Records are in very poor condition, and the road register is not kept up. In fact, no effort is made to record road matters. The Assessor's map shows all roads at the time the map was made, but it is not brought up to date.

Manner of Construction and Maintenance: By day's labor, under personal supervision of Supervisors.

Accounts: Are kept in the supervisorial districts, which are not subdivided.

Raising Money: By direct tax on all outside property, and by road poll tax. Transfer of \$2,000 from general county fund for bridge purposes. \$17,500 in bonds (see footnote).

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	40	\$14,125 53
1894	40	13,461 87
1893	37	13,340 88
1892	37	12,790 53
1891	37	12,392 24
1890	36	10,801 27
1889	39	11,345 55
1888	35	10,312 49
1887	35	11,499 79
1886	35	10,085 61
Bonds*		17,500 00
Total		\$137,655 76

* Bonds—Year of issuance not known.

Lake County is irregular in shape, lying between the extreme eastern crest of the Coast Range Mountains and the middle range of same, Clear Lake forming a basin almost in the center.

The valleys and lowlands, suitable for agriculture and dairy interests, constitute only a small percentage of its area. The mountains are steep and rugged. As a consequence, the roads are steep and exceedingly difficult to maintain. This is notably the case in the road from

the landing on Clear Lake to Bartlett Springs, which is very steep and in some places dangerous. Toll roads are numerous, and, as a rule, are well located; especially so is the one from Highland Springs to Pieta. In fact, all the passes into the county are under the control of corporations, and the toll exceeds the road tax. A well-located road was built on the shores of the Blue Lakes by the people, who subscribed cash and labor in order to escape the burdensome toll tax.

Building material is plentiful in all portions of the county, and gravel is abundant both in deposits and in streams.

Trap, shales, and serpentine abound in many sections; the last named being used in some instances, making a good road surface. Many miles of the valley roads are well graded and graveled and in good condition. No sprinkling has been done in this county, though water can be readily obtained by gravitation from the numerous springs and streams and by pumping from wells. No attention whatever is paid to drainage, and in consequence, many of the mountain grades are annually washed away. The rainfall is 32 inches annually, and in many seasons is enormous.

This is one of the few counties in which the Board of Supervisors has complied with the provision of Section 2738 of the Political Code, relating to sign-boards, which are to be found at nearly every cross road.

LASSEN COUNTY.

Organized: 1864.

Area: 4,750 square miles.

Visited: December 13, 1895, by Commissioner Manson; August 26, 1896, by Commissioner Irvine.

Mileage: 710.

Improved: No miles macadamized; 5 miles graveled; no miles sprinkled; 75 miles graded.

Title and Records: Title to at least nine tenths of the mileage is very imperfect. It is secured by declaration, purchase, and grant. Records, excepting those for the past few years, are not reliable.

Manner of Construction and Maintenance: By day's labor, under supervision of Road Commissioners and deputies.

Accounts: Are kept against five districts only.

Raising Money: By direct taxation on all property, and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	35	\$8,018 31
1894	33	9,829 16
1893	35.4	9,992 53
1892	30	7,424 58
1891	30	6,616 26
1890	25	6,966 42
1889	20	5,037 78
1888	30	7,610 33
1887	30	8,514 26
1886	32	7,611 90
Total		\$77,621 53

Lassen County is bounded on the north by Modoc, on the west by Shasta, on the south by Plumas County, and on the east by the State of Nevada. It lies on the east of the Sierras, and is a succession of mountain ranges. Lassen Buttes, rising to an elevation of over 10,000 feet, are the highest peaks. About 600 square miles are valley land, 500 square miles rolling, and the remainder, mountainous.

Road-building materials, consisting of gravel, granite, limestone, trap, and volcanic formation, are to be found in different sections of the county. The available supply, however, is limited, for, as a rule, the materials mentioned occur too far from the roads.

Water in abundance for sprinkling purposes may be developed by wells in the level sections and by gravitation from the numerous streams.

The mountain grades are steep and narrow, and as a rule are poorly located, the idea of construction on lines that require the least outlay evidently having prevailed in laying them out. Before any good results can be expected, many miles of road must be relocated. Some good grading and graveling have been done near the county seat.

The soil through the valleys is of such a nature that it makes an excellent roadbed, and, to make a good road, all it requires is better drainage and proper grading.

Very little attention is paid to drainage, and as a natural consequence, the rains and snows do great damage. Many miles of roads are annually maintained that might be economically abandoned, as the travel is insufficient to warrant any outlay. Only a few of the roads are kept open in the winter months, as the snow is very deep on the mountains.

Bridges are numerous, but most of them are of wood and need constant expenditures to keep them in repair for travel.

The average annual rainfall is about 23 inches, and of snow, about 90 inches, the latter from November to March, the heaviest in December and January.

LOS ANGELES COUNTY.

Organized: 1850.

Area: 3,957½ square miles.

Visited: February 6, 1896, by Commissioners Maude and Irvine; August 17, 1896, by Commissioner Maude.

Mileage: Never ascertained; about 1,200 miles.

Improved: 10 miles macadamized; 40 miles graveled; 50 miles sprinkled; 200 miles graded.

Title and Records: Title to old roads is defective; to new roads it is good. Probably 60% of roads have title in more or less perfect form. All titles now being perfected. In former years no method of obtaining title seems to have followed—simply a declaration. Of late years, the method prescribed by the Codes has been followed. Records previous to 1880 are poor; since then they have been kept better. A systematic effort is now being made to get records in proper form.

Manner of Construction and Maintenance: Contract for large pieces of construction; day's labor for other construction and maintenance.

Accounts: No accounts other than vouchers and those ordinarily kept by Auditor. Supervisorial districts subdivided into road districts, each district having its particular fund.

Raising Money: By direct levy on all outside property and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	30	\$88,543 10
1894	30	95,825 29
1893	30	80,833 54
1892	25	83,054 26
1891	30	125,892 01
1890	30	86,061 88
1889	30	99,911 45
1888	20	104,225 14
1887	25	58,778 95
1886	20	61,620 20
Total		\$884,745 82

The confines of Los Angeles County embrace level valley land and rugged mountains. The main valley area, located in the southwestern portion of the county, is at present the site of the homes of the major part of the population of the county. Here are located the cities of Los Angeles, Pasadena, Pomona, and Santa Monica; while the outlying country is as densely populated as are areas of like size in many of the far Eastern States. Improved highways mean the still further development and prosperity of this suburban district, and through it the prosperity and further growth of the cities above mentioned. In considering the road problem this section must be dealt with separate and apart from the rest of the county, owing to the different conditions of topography, climate, soil, settlement, and requirements demanded by them.

Gravel, disintegrated granite, granite, limestone, porphyry, and other igneous rocks, together with hardpan, are found scattered through the county, and some of these varied materials are available in almost all sections. Water for sprinkling purposes is obtainable in almost all localities.

The rainfall varies from 14 to 16 inches per annum, and is precipitated from November to April.

Climatically, there is never enough cold to affect roads, while in the summer months the heat is not so severe as in other localities farther removed from the sea coast and its ameliorating influences.

The soil, being largely composed of decomposed granite with an admixture of iron, is heavy and non-absorbent in character. This fact, taken with the small amount of rainfall, warm climate, and generally clear sky, which permits an unrestricted action of the sun's direct rays

upon the road surface, generally prevents mud on even illy drained earth roads. For the same reason, dust is the great enemy to be contended with during the long dry season.

The use of more permanent materials in the construction of culverts is strongly recommended, such as vitrified pipe for the smaller ones, and concrete or brick for those of larger dimensions.

A careful and frequent inspection of bridges requiring repairs should be made, to the end that the life of the bridges may be prolonged by repairing whenever necessary. The utilization of a wearing material as a covering for bridge flooring, such as bitumen or asphaltum, is recommended. The result would be that instead of planking having to be repaired every year or two the asphaltic surface would last for from eight to ten years with but little repair necessary.

The planting of trees of a deciduous nature along the sides of the highways should be inaugurated. Trees of this character should be planted so that their foliage may shade the roadway during the heat of summer, while during the wet winter months their barren limbs offer no obstruction to the rays of the sun, which remove all excess moisture. The further development of sprinkling should be carried on as rapidly as available funds will permit.

The careful cross-sectioning of roads is recommended. This should be about $\frac{1}{2}$ inch to the foot. The roads are in many instances excessively and unnecessarily wide. The width should be reduced to 60 feet, of which not over 24 feet should be prepared for roadway, the remainder being left for ditches, trees, and footways.

The varied materials suitable for road-surfacing should be more fully utilized.

The Board of Supervisors is to be commended upon the energy it displays in correcting and perfecting the road records and maps. Under its direction a complete set of road maps is now being prepared by the County Surveyor, while the Clerk of the Board has prepared an index of roads and all proceedings connected therewith, that is of great value. In this county the Bureau of Highways found the only complete list of road machinery kept in any county of the State. This is a matter of great importance, and should be followed by other counties.

In the mountain portion of the county, the road problem is more one of construction than of maintenance at the present time. Owing to the sparse settlement, there is comparatively light travel over such roads, and as a consequence they rarely become muddy or dusty. As a general rule, the soil conditions are favorable for good earth roads. The problem of drainage is comparatively easy of solution. The drains should be so constructed that there will be no washing of the roadways. In a majority of instances there are trees which serve to shade the roadway. The matter of location is an important one. The roads should be located

so that the grades will not exceed 8%. Maintenance will consist in most instances of repairing the washes, removing fallen trees, etc.

In the northern, or so-called arid region, the effort should be made principally to secure rights of way, so that when the country is put under irrigation, and consequently well settled, the work of improvement can be systematically carried forward.

MADERA COUNTY.

Organized: 1893.

Area: 2,140 square miles.

Visited: February 24, 1896, by Commissioner Irvine; July 7, 1896, by Commissioner Manson.

Mileage: 395.

Improved: No miles macadamized; no miles graveled; $\frac{3}{4}$ mile sprinkled; 225 miles graded.

Title and Records: Roads are opened in the manner prescribed by law. The records consist of the prescribed form—filed and recorded deeds. Plats and surveys filed in Clerk's and Surveyor's offices. Indexes not yet found necessary.

Manner of Construction and Maintenance: By day's labor.

Accounts: Claims are filed by the individuals doing the work, and warrants drawn in their favor and entered in Allowance Book, which designates the district or other fund from which payment is to be made; locality and extent of work done not definitely given.

Raising Money: By property and poll tax.

Amount Expended in Past Three Years.

Year.	Rate in Cents per \$100.	Amount.
1895	34	\$26,318 39
1894	25	19,264 77
1893		*511 20
Total		\$46,094 36

* This amount transferred from Fresno County road fund. No tax raised for fiscal year 1893.

Madera County extends from the San Joaquin River to the crest of the Sierras, the river forming the border line throughout the western and southern sides, and draining the greater portion of this mountain area. The valley portion occupies about two fifths of the area of the county, and the remainder rises from the floor of the valley to elevations of from 10,000 to 13,000 feet above tide.

In the valley only limited deposits of gravel occur. Alkaline clays, adobes, and sand are available. Throughout the mountain area, disintegrated granite, trap, and volcanic and metamorphic rocks exist.

Water is available in irrigated portions, and can be developed from artesian and surface wells.

MARIN COUNTY.

Organized: 1850.

Area: 516 square miles.

Visited: July 8, 1895, by Commissioners Manson and Irvine; September 15, 1896, by Commissioner Manson.

Mileage: 235.

Improved: No miles macadamized; no miles graveled; 3 miles sprinkled by subscription. Miles graded not known.

Title and Records: Roads are opened in the manner prescribed in the Code, but alterations are sometimes made without petition, on motion by the Board of Supervisors. The records are in fair condition and consist of the road register, full indexed reference to road proceedings, and maps filed with the Clerk and Surveyor.

Manner of Construction and Maintenance: Contracts are generally let for extensive grading. One road under construction by convict labor upon agreement between the Board of Prison Directors and the Board of Supervisors.

Accounts: Warrants are drawn in favor of the individuals doing work, and accounts are kept against district and general road fund, as well as entered in the allowance book. But the exact cost of improvement done upon any particular road is not ascertainable.

Raising Money: By property and poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	22	\$20,215 85
1894	21	23,826 49
1893	19	22,699 95
1892	20	22,241 70
1891	18	21,269 70
1890	17	16,336 35
1889	19.8	21,768 25
1888	20	22,498 10
1887	20	19,351 65
1886	22.5	21,638 89
Total		\$211,846 93

Marin County extends from the Golden Gate, northerly for 60 miles along the ocean, and 30 along the Bay of San Francisco. The greater portion of the county is rolling and mountainous, rising from tide level to elevations of 2,600 feet.

Road-building materials are well distributed over the county, in the form of gravels and volcanic and metamorphic rocks.

Water can be obtained from springs and streams, and can be pumped near tide level from the bay and estuaries. The moister climate on the west exposures renders road-sprinkling less necessary than on the eastern exposures. Sprinkling is done for several miles, from San Rafael to Ross Valley, by subscription.

The districts own road-scrapers, but no official record is kept of road-building machinery.

The advantages of a careful location have not always been followed,

for in 1893 the grade of the road from Sausalito over Corte Madera ridge to San Rafael was specified by the County Surveyor to be not less than 5%; yet it was opened in 1895 upon grades as high as 12%.

MARIPOSA COUNTY.

Organized: 1850.

Area: 1,580 square miles.

Visited: August 28, 1895, by Commissioners Manson and Irvine; June 27, 1896, by Commissioner Manson.

Mileage: No information could be obtained from the County Surveyor regarding road mileage in this county.

Title and Records: The titles to the older roads rest upon usage and sufferance. There is no road register, but a franchise book of toll roads. New roads are opened in the general manner prescribed in the Code. Records are deficient and lacking.

Manner of Construction and Maintenance: By day's labor generally. Contract and agreement in special cases.

Accounts: The erroneous practice of drawing warrants in favor of the Road Commissioner prevails. No special system of road accounts kept.

Raising Money: By property and poll tax. \$15,000 6% bonds issued in 1895.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	25	\$21,801 18
1894 -----	23	4,886 98
1893 -----	23	5,122 08
1892 -----	22	4,251 99
1891 -----	23	4,907 42
1890 -----	40	7,156 67
1889 -----	17	3,648 87
1888 -----	30	5,700 27
1887 -----	22	3,996 04
1886 -----	27	4,803 79
Total -----	-----	\$66,275 29

Mariposa County occupies the slopes of the base of the Sierras, from the foothills eastwardly to the crest. The Merced River flows through and drains the greater portion of the county. Nearly the entire area is rolling and mountainous. The upper third of the county is within the Yosemite Reserve. The foothill regions are mostly slate, but harder rocks occur, which can be utilized for road-surfacing.

Water can be developed for road-sprinkling only at considerable cost, and is not abundant.

Considerable improvement and increased interest in road construction and management were noted between the first and second visits of the Bureau. Systematic relocation and construction alone will yield best results for this county.

MENDOCINO COUNTY.

Organized: 1850.

Area: 3,460 square miles.

Visited: January 21, 1896, by Commissioner Manson; August 25, 1896, by Commissioner Irvine.

Mileage: 1,200.

Improved: No miles macadamized; 10 miles graveled; no miles sprinkled; 800 miles graded.

Title and Records: Title to about 20% of the roads is perfect, but balance of roads are used simply by sufferance. Records are poorly kept; no road register. Title secured by purchase, condemnation, dedication, and grant.

Manner of Construction and Maintenance: By day's labor, under supervision of foremen appointed by Road Commissioners.

Accounts: Are kept in ledger form against each district only; not against any particular road.

Raising Money: By direct tax on outside property, and by road poll tax. Books also show transfers from other funds to road fund; \$68,000 bonds issued in 1886, and \$20,000 in 1892.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	36	\$47,523 25
1894	34	46,515 45
1893	31	40,470 40
1892	34	64,745 45
1891	38.4	42,180 00
1890	40	44,220 00
1889	52.2	43,820 00
1888	40	43,040 00
1887	40	35,840 00
1886	40	100,164 00
Total		\$508,518 55

Mendocino County lies south of Humboldt County, the greater portion being exceedingly mountainous and heavily timbered. Some small valleys and low bottom lands are to be found, but these constitute only a very small portion of its area. Road-building material is to be found in unlimited quantities, but very little of it has been used on the highways. Gravel abounds in all the main streams and is easy of access, while on all the mountain grades vast ledges of shale of a superior quality are encountered; but it has never been utilized. There is not another mountain county in the State where such an abundance of material suitable for road-building is accessible as in this county, and yet no advantage has been taken of the fact.

Water is plentiful from the springs and natural waterways on most of the grades, while in the valleys it can be had by pumping. The grades are excessively steep, and in one instance a road was surveyed and constructed on a 25% grade when the same altitude could have been economically reached by a grade not exceeding 8%.

The rainfall is excessive, being as high as six feet in some seasons. With this rainfall, and the grades constructed as they are, it is almost an impossibility to maintain the roads, and for months during each year travel and freight and lumber teaming are out of the question. There is not another county that needs the relocating of roads so much as Mendocino. Many bridges and culverts must be maintained, and a large amount of the taxes raised is thrown away on temporary structures. No attention is paid to drainage of these steep grades, and some of them are simply ditches to drain the enormous watersheds. The supervisorial districts are subdivided into thirty-two road districts, and when the funds are apportioned there is not enough in any one road district to do anything but patch-work.

Along the coast are many miles of sand roads, and near to all of these sandy stretches are unlimited supplies of excellent cement, gravel, and shale, which, if utilized, would convert these roads into splendid highways.

The average rainfall is 33 inches at Ukiah; but the northwestern portion of the county lies within the 50-inch belt.

MERCED COUNTY.

Organized: 1855.

Area: 1,750 square miles.

Visited: August 30, 1895, by Commissioners Manson and Irvine; July 1, 1896, by Commissioner Manson.

Mileage: 400.

Improved: No miles macadamized; 60 miles graveled; no miles sprinkled; 110 miles graded.

Title and Records: Titles are in good condition, owing to the system of surveying and recording plats. The methods prescribed in the Code for opening, closing, and altering roads are closely followed, and are supplemented by forms issued by the Clerk and Surveyor. The road records of the county are in excellent condition, although the system adopted has not been kept up of recent years. The forms gotten up will be useful in preparing general forms for the other counties.

Manner of Construction and Maintenance: Construction, grading, and graveling done by contract, with good results; repairs and maintenance by day's labor.

Accounts: Are in good condition. Claims are presented by the party doing work, approved by Road Commissioner, and audited by the Board, but do not definitely show exact location and extent of work done.

Raising Money: By property tax. No poll tax collected since 1887. Of the total amount shown for ten years, \$600 was subscribed.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	34	\$46,965 25
1894	34	59,495 59
1893	40	48,220 40
1892	40	63,103 50
1891	40	57,337 73
1890	40	52,409 38
1889	40	50,373 50
1888	40	59,671 48
1887	40	46,264 60
1886	25.5	32,683 52
Total	-----	\$516,524 95

Merced County extends eastwardly from the crest of the Coast Range across the great valley of California to the base of the Sierras. Three fourths of the county lies within the valley, and the remainder is rolling and mountainous. The San Joaquin River flows through the county from north to south, and divides it into nearly equal portions. The Merced flows through the eastern half of the county near its northern border. Smaller Sierra streams water the southeastern portion of the county.

The soil of the valley portion varies from sandy to adobe, each requiring special treatment in regard to drainage and surfacing. The sandy roads are frequently "strawed," at a cost of about \$35 per mile. This works into the sand and lasts several weeks under heavy teaming. It is sometimes necessary to straw the road twice in a season in order to haul grain to the depots. Systematic work would do much to relieve the county of this drain.

The road machinery consists of one 7-ton road-roller, bought by Districts 2 and 3, and five graders, owned by the districts.

The estimated cost of bridges in the county is \$79,600.

(The Bureau is indebted to the County Surveyor for excellent data and information regarding roads and road structures.)

MODOC COUNTY.

Organized: 1874.

Area: 4,097 square miles.

Visited: December 17, 1895, by Commissioner Manson; July 23, 1896, by Commissioner Irvine.

Mileage: 688.

Improved: No miles macadamized; 10 miles graveled; no miles sprinkled; 200 miles graded.

Title and Records: There is regular title to but a very small portion of the roads, acquired by purchase, condemnation, and grant; by balance by sufferance. Records are in poor condition. But little reliable data can be obtained from them. However, an attempt is being made to straighten them out.

Manner of Construction and Maintenance: By day's labor, under supervision of the Road Commissioner.

Accounts: Are kept in fourteen separate funds.

Raising Money: By direct tax on all property, and by road poll tax. Following table includes transfers amounting to \$640.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	27.5	\$8,216 73
1894	30	9,244 63
1893	25	8,722 66
1892	25	9,121 86
1891	35	11,801 94
1890	25	8,441 71
1889	18.8	6,901 23
1888	16	6,743 51
1887	18	7,332 77
1886	20	7,294 38
Total		\$83,821 42

Modoc County is situated in the extreme northeastern corner of the State, and extends from Lassen on the south to the Oregon line on the north. It is rolling and mountainous, interspersed with some large fertile valleys. A portion of the county is of volcanic formation, and the lava beds constitute a large percentage of its area.

Gravel suitable for road purposes is found near Alturas, and trap and volcanic matter, specially good for road purposes, are found in unlimited quantities in almost every section of the county.

Water for sprinkling purposes is scarce in the valleys, but plentiful in the mountains.

The roads in the mountains are poorly located and extremely difficult to maintain, while in some of the valleys the soil is naturally gravelly and exceptionally good, and consequently the keeping of the roads in repair is inexpensive. There is one very good natural stretch of road in Surprise Valley, over 25 miles in length, the maintenance of which costs practically nothing. The formation is of a fine gravelly soil that cements very closely, and resists the action of vehicles and of the elements.

The valley lands range in elevation from 4,000 to 5,000 feet above sea-level, while some of the mountains reach an altitude of 7,500 feet.

Average rainfall, Fort Babbitt, 11.80 inches; Fort Bidwell, 20.06 inches. Snow falls, varying in depth from 15 inches in the valley to 10 to 15 feet in the mountains.

MONO COUNTY.

Organized: 1861.

Area: 2,796 square miles.

Visited: February 17, 1896, by Commissioner Manson; August 12, 1896, by Commissioner Manson.

Mileage: 374.

Improved: 85 miles toll road; 239 miles "worked" and partly graded; no miles sprinkled; 50 miles not worked.

Title and Records: The roads and trails were, as a general proposition, laid out and operated prior to land ownership, but they have been changed informally, and hence, title would have to be established. No deeds recorded.

The prescribed legal method is followed in opening roads. Highways have been illegally closed and fenced up without formal abandonment by the Board of Supervisors. An abstract of the minutes of the Board relative to road work has been kept from 1861 to 1891. Some surveys and plats are also on file, as are Road Commissioner's reports.

Manner of Construction and Maintenance: Mostly by day's labor.

Accounts: Are kept in a fair way, but the principal method is by filing claim warrant drawn to the individual doing work, and entered in allowance book. Exact location and amount of work not definitely recorded.

Raising Money: By property and poll tax. Books also show transfers of funds.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	10	\$1,933 13
1894	10	1,338 38
1893	10	1,531 27
1892	10	1,749 31
1891	10	1,404 28
1890	--	1,044 00
1889	10	1,423 91
1888	4.2	873 38
1887	6	1,494 92
1886	8.6	1,173 78
Total		\$13,966 36

This county extends eastwardly from the crest of the Sierras to the State line, and adjoins Alpine on the north and Inyo on the south. The greater portion of the county is rough and mountainous. The valleys are at an altitude of over 7,000 feet, and are partly watered by streams from the Sierras.

The principal physical feature of the county is the Mono Lake basin, a separate drainage system, within the Humboldt basin. Its western crest rises to elevations of 13,000 feet, and the lake has an elevation of 6,380 feet. There are several passes over the Sierras within the limits of Mono County, the principal of which are McLane's Pass (at the head of Leevining Creek), Sonora Pass, and Bloody Cañon. A much needed connection lies between the Mono and Tuolumne roads via the first or last-named pass, as this connection lies south of the almost impassable cañons of the Stanislaus and Tuolumne rivers, and avoids

the great detour via Sonora Pass. One of the members of the Bureau made a careful examination of these passes, as their importance to widely separated sections of the State warrants aid in the construction of the connecting road.

In conjunction with other counties, Mono has in the past issued about \$43,000 in bonds for the construction of roads leading eastwardly over the Sierras, but the county is now commercially and industrially tributary to Nevada.

The rights of the public to trails and roads have been infringed upon by illegal fencing and closing, and no steps have been taken by the Road Commissioners to abate these abuses.

The county is abundantly supplied with hard volcanic and metamorphic rocks for road-building.

Water is scarce, the rainfall in the larger portion of the county being less than 10 inches per annum, though on the higher elevations of the Sierras it is as high as 50 or 60 inches per annum, most of the latter being precipitated in the form of snow.

The value of the bridges in the county is about \$6,730.

The county owns a road-grader costing \$408, plows and scrapers.

(The Bureau is indebted to the County Clerk, Mr. J. D. Murphy, and to the Sheriff and Tax Collector, Mr. M. P. Hayes, for courteous assistance in the collection of road data.)

MONTEREY COUNTY.

Organized: 1850.

Area: 3,450 square miles.

Visited: December 10, 1895, by Commissioners Maude and Irvine; July 22, 1896, by Commissioner Maude.

Mileage: Not accurately obtainable, on account of lack of records. About 600 miles.

Improved: 3 miles macadamized; 18 miles graveled; no miles sprinkled; about 20 miles graded properly.

Title and Records: Titles secured prior to 1891, generally defective. But little attempt seems to have been made to perfect same. Records are very defective, and are not well indexed or properly filed, and hence, are unavailable.

Manner of Construction and Maintenance: Contract system and day's labor have both been employed, with varying results. Contract system has not proved a success as applied to maintenance.

Accounts: No accounts are kept other than the ordinary vouchers, which, in some instances, are not properly itemized.

Raising Money: Money is raised by direct tax, poll tax, and transfers from current expense, salary, and other funds. Bridge bonds to the amount of \$150,000 were issued in August, 1889, sold for \$150,375; interest 5%, payable semi-annually. In 1878, there were issued \$23,000 worth of bridge bonds, which were redeemed in 1888.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	20	\$29,857 16
1894 -----	18	30,709 81
1893 -----	24	42,826 43
1892 -----	22	33,708 86
1891 -----	24	35,653 50
1890 -----	40	197,153 92
1889 -----	18	26,454 40
1888 -----	18	27,245 21
1887 -----	20	23,498 36
1886 -----	18	15,795 90
Total -----		\$462,903 55

Topographically, the settled portion of the county, which is the portion traversed by roads, is level, being situated in the Salinas and Pajaro valleys. The remainder of the county, situated in the Coast Range, is mountainous, but on account of sparse settlement and little travel, but few highways are necessary.

Gravel is found in the Pajaro River, and a good quality of disintegrated granite near Soledad. Hard granite, suitable for road-metal, is found near Monterey, but is somewhat inaccessible. Limestone deposits exist throughout the mountains, and can be made available for road-metal. Other igneous rocks exist in the county, but in small quantities, and are generally inaccessible. Bituminous rock of excellent quality is found in many localities. Two quarries are worked by private individuals, one near Metz and one near King City.

Water for sprinkling can be had in the Pajaro Valley and in the country adjacent to the cities of Monterey and Salinas, the sources being wells, ponds, and streams. In the Salinas Valley the supply of water is inadequate, and that which is available is not easily obtainable. The annual rainfall is between 12 and 13 inches.

The portion of the county situated in the Salinas Valley is subjected to great heat and drying winds during the summer months.

The soil in the Pajaro Valley and adjacent to Monterey and Salinas is of a heavy nature, retaining water, and as a result the roads in this section are in a deplorably muddy condition during the rainy season.

In the Salinas Valley, the rainfall being less and the soil conditions different, mud is not so serious an impediment to traffic. Two distinct methods of highway construction must be utilized in this county. In the Pajaro Valley and the sections adjacent to the cities of Monterey and Salinas, drainage and metaling of the road surface are absolutely necessary. Through the Salinas Valley a proper cross-section must be given the roads. Aside from this, but little can be done.

The methods of maintenance of the highways must also vary in these two sections. The metaled roads must, of course, have worn-out or dis-

placed metal renewed. Sprinkling is also essential where practicable. Maintenance throughout the Salinas Valley is a more difficult problem, on account of the scarcity of water. Where it can be obtained the roads should be sprinkled, and to conserve the moisture thus artificially applied, a systematic effort should be made at wayside tree-planting.

The Board of Supervisors of this county is deserving of praise for its efforts looking toward systematic road improvement. One of the districts, with but a small road fund, in conjunction with the City of Salinas, has purchased a rock-crushing plant with all its adjuncts. The plant being small and portable, can be readily moved from point to point, as necessary. At present it is employed in crushing a species of limestone at a quarry some 4 miles from Salinas. This may be said to be practically the first systematic attempt made in this county at road-building. Three miles of macadamized road have been built, presaging much good for the future prosperity of this county.

NAPA COUNTY.

Organized: 1850.

Area: 800 square miles.

Visited: June 29, 1895, by Commissioners Manson, Irvine, and Maude; September 2, 1896, by Commissioner Irvine.

Mileage: 550.

Improved: 50 miles sprinkled. Further data as to classification unobtainable, except as given below.

Title and Records: To only a very small proportion title is perfect; the remainder of the roads being used by sufferance and dedication. Records are in good condition for roads recently laid out, but for older roads no data available.

Manner of Construction and Maintenance: By day's labor. Payments for labor are made by the Road Commissioner in person, and he makes a quarterly report to the Board of Supervisors, and warrant for the amount is drawn in his favor.

Accounts: Are kept against fourteen road districts, and funds kept separately.

Raising Money: By direct tax on all outside property, and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	38	\$33,102 82
1894	35	34,954 71
1893	30	32,068 67
1892	30	32,836 43
1891	30	33,168 10
1890	33	36,195 98
1889	30	34,858 23
1888	25	29,354 83
1887	26	26,380 09
1886	25	23,720 95
Total		\$316,640 81

Napa County, like Lake, is extremely irregular in shape, the crest of the eastern and middle ranges of the Coast Range Mountains forming its eastern and western boundaries. Napa Valley, together with other smaller valleys, constitutes about one fifth of the whole area, the remainder being rolling and mountainous.

Road-building material is abundant, and consists of gravel, trap, basalt, and shale; gravel in unlimited quantities is to be found in all the streams, while the other varieties of material occur in various portions of the county. Stone for bridge purposes is plentiful and has been utilized to great advantage.

This county leads all others in the introduction of permanent structures, having constructed nine stone bridges, ranging in length from 50 to 300 feet. The shorter bridges consist of single arches, spanning the smaller streams, and giving abundant waterway during flood seasons. The longer bridges consist of arches in series. The spans of these longer bridges vary from 55 to 70 feet for each arch.

Two of the larger bridges deserve special mention. The first constructed was over the Napa River, near St. Helena. This bridge is 212 feet in length over all, and has three 55-foot arches, with piers and abutments resting on bedrock. The center arch is somewhat higher than the others. The second is over Putah Creek near Monticello, and is a somewhat larger and more imposing structure. It consists of three 70-foot arches carried down to bedrock. This structure is illustrated in the report. The center span is 42 feet above low water. The abutments are 6 feet below the surface, resting on bedrock. The piers are 16 feet at the base and 10 feet at spring line, and also rest on bedrock. The arch stones are 3 feet 6 inches deep, $12\frac{3}{16}$ inches at crown, and 11 inches at base, laid in cement mortar. The stone used in the bridges is a native sandstone, and is found in abundance near the site. It is extremely strong, having stood a test of 8,000 to 12,000 pounds pressure to the inch.

There were used in the construction of the last-mentioned bridge $2,600\frac{5}{16}$ cubic yards of material, 675 barrels of cement, 380 barrels of lime, 55,000 feet of lumber for false work, and $1\frac{3}{4}$ tons of iron. The only article purchased outside of Napa County was the cement. The entire cost of the bridge was \$19,980, while the two combination wooden-iron bridges erected at this point represent in their construction and maintenance an outlay of \$53,000, and yet, after this enormous outlay, all there was to show for it was a pile of broken and rotten timbers. This county has expended in the construction of the nine stone bridges less than \$50,000, and the maintenance of these structures will be nominal. The economy and permanence of stone bridges are seen at a glance, and the example set by this county is worthy of emulation.

The roads in the valley are well graded, and macadam has been used

on about $1\frac{1}{2}$ miles. Gravel has been used extensively, and one road is well graded, graveled, and watered for 30 miles, making as good a stretch of road of that length as there is in the State.

Water for sprinkling is obtained principally by pumping with horsepower and windmills. In some instances, water is purchased from private tanks. It is to be noted, however, that in such cases an unusual price is exacted, notwithstanding the fact that the water is used to sprinkle the road on which the land of the party furnishing the water abuts.

Many of the roads are poorly located and correspondingly difficult to maintain, but an effort is being made of late to reduce the grades.

The average rainfall is between 25 and 31 inches.

NEVADA COUNTY.

Organized: 1851.

Area: 958 square miles.

Visited: October 28, 1895, by Commissioners Manson and Irvine; August 18, 1896, by Commissioner Irvine.

Mileage: Approximately 500.

Improved: 5 miles macadamized; 10 miles graveled; 4 miles sprinkled; 300 miles graded.

Title and Records: To the major portion, title is defective, though of late years an effort has been made to obtain deeds. Title is secured by purchase, condemnation, and grant. Records are in fair condition, and all new roads are surveyed, mapped, and recorded; but the majority are not of record.

Manner of Construction and Maintenance: By day's labor, under supervision of Road Commissioner.

Accounts: There are but five districts, and accounts are kept against each one.

Raising Money: By direct taxation, and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	40	\$18,584 82
1894	40	17,016 99
1893	40	18,529 16
1892	40	24,433 93
1891	40	18,650 94
1890	40	18,212 69
1889	40	19,852 46
1888	40	20,534 86
1887	40	19,539 12
1886	40	18,508 40
Total		\$193,863 37

This county extends from the valley of the Sacramento, at an elevation of 1,000 feet, to the summit of the Sierras, 8,000 feet high. The Middle Yuba bounds it on the north, and the South Yuba and Bear rivers form its southern boundary. It is a narrow county, like Placer, and

embraces various features. The western portion is tillable, the central part is rolling, being made up of small valleys, and the remainder is extremely mountainous.

So far as road-building material is concerned, this county is extremely fortunate. Quantities of granite, trap, basalt, and quartzite abound, while some gravel is found in all the streams. Immense deposits of waste material, or "dumps," as they are called, from the numerous quartz mines, need only the action of a crusher to be converted into excellent road-metal. As the greatest expense in preparing crushed rock is the quarrying, by utilizing these "dumps," which are conveniently located, the cost of production could be reduced to a minimum.

Some of the recommendations of the Bureau of Highways have been inaugurated, and the indications are that there will soon be a rock-crushing plant in full operation. It will then be possible to macadamize many miles of road at very little expense.

An inexhaustible supply of water for sprinkling purposes may be had by gravitation from the numerous streams at a nominal expense. Only a few miles have been sprinkled, but the results have been most satisfactory.

A systematic reduction of some of the mountain grades would assist materially in reducing the cost of transportation.

No particular attention has been paid to drainage, and many of the roads located on ridges are badly worn and form ditches to drain the immense watershed.

Some large and expensive bridges have been erected; there is approximately the sum of \$70,000 invested in their construction.

There are some toll roads left, the construction of which has cost a great deal of money, and while they have not been built on the easiest lines available, they are in fair condition.

The average annual rainfall for the central portion of the county is 50 inches; western extremity, about 25 inches.

ORANGE COUNTY.

Organized: 1889.

Area: 780 square miles.

Visited: January 20, 1896, by Commissioners Manson and Irvine; August 26, 1896, by Commissioner Maude.

Mileage: No accurate data obtainable.

Improved: No miles macadamized; about 6 miles graveled; $5\frac{1}{4}$ miles sprinkled; very few miles graded properly.

Title and Records: Titles to roads laid out since organization of county are comparatively regular. Title is obtained by petition, appointment of viewers, viewers' report, etc., as prescribed by law, except where proposed road runs along section lines, in which case these proceedings are dispensed with, and mere declaration made. Abstract of road matters appearing in minute book of Board of Supervisors is kept, and properly indexed.

Manner of Construction and Maintenance: By day's labor and contract, the latter system being used on large pieces of grading, etc., and for digging, hauling, and distribution of gravel.

Accounts: No segregated accounts kept.

Raising Money: By direct taxation on all outside property, road poll tax, and, in year 1895, special levy of 2 cents on each \$100 of total assessed valuation.

Amount Expended in Past Seven Years.

Year.	Rate in Cents per \$100.	Amount.
1895	28	\$22,949 00
1894	25	21,082 46
1893	30	21,798 80
1892	30	22,614 50
1891	25	18,123 14
1890	25	17,548 54
1889	20	15,330 63
Total		\$139,447 07

Five sevenths of the county is level valley land, the remainder being composed of mountains and foothills. In the northern portion, which comprises the more settled districts, water for sprinkling purposes is readily accessible, there being many miles of irrigation ditches and hundreds of flowing artesian wells. This artesian belt does not, however, extend to the southern part of the county, where water has to be developed by pumping.

An excellent quality of gravel for road work is obtainable in many districts of the county. Asphaltum beds exist near Anaheim, the product of which could be utilized if properly mixed with sand.

The annual rainfall is about 15 inches.

The matters of road construction and maintenance present but few obstacles in this county. The gravel and water supplies, above referred to, if judiciously utilized, as well as the nature of the soil, form the basis for good roads. The road through the cañon of the Santa Ana River, connecting the counties of Orange and Riverside, though heavily traveled, is, in most localities, on a very poor cross-section, is badly drained, and, therefore, subject to heavy washouts during the winter rains.

Particular attention is paid by the present Board of Supervisors to the asphaltting of the floors of bridges, and much good is being accomplished in this direction, though the location of many of the bridges in the county has been anything but economical.

PLACER COUNTY.

Organized: 1851.

Area: 1,484 square miles.

Visited: October 26, 1895, by Commissioners Manson and Irvine; September 15, 1896, by Commissioner Irvine.

Mileage: Approximately, 750.

Improved: No miles macadamized; about 10 miles graveled; by subscription, 3 miles sprinkled.

Title and Records: To the greater portion of the roads, title is very imperfect; it is secured by condemnation, purchase, and grant. There are practically no records. No road map in existence. During the past few years an effort has been made to record the new roads that have been laid out.

Manner of Construction and Maintenance: By day's labor, under supervision of Road Commissioner.

Accounts: Are kept against twenty-six districts.

Raising Money: By direct tax on all outside property, and by road poll tax. Auditor's books also show transfers from county general fund.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	30	\$32,173 71
1894	34	35,056 05
1893	28	27,707 73
1892	30	34,861 08
1891	32	32,484 14
1890	35	51,534 68
1889	35	36,232 93
1888	34	35,951 66
1887	30	26,409 63
1886	30	21,308 17
Total .....	.....	\$333,719 78

Placer County is very narrow, extending from the plains, at an altitude of 160 feet, to the summit of the Sierras, 7,000 feet above sea-level. It is bounded on the north by Yuba and Nevada, on the west by Sutter, on the south by El Dorado and Sacramento, and on the east by Lake Tahoe. The western part of the county is valley land, the center rolling, while the eastern portion rises rapidly to the summit.

Road-building material, consisting of serpentine, limestone, trap, basalt, and shale, abounds in different sections, while granite and gravel are abundant in all portions of the county.

Water for sprinkling purposes, in unlimited quantities, is available from the various mining and irrigation ditches in the rolling and mountainous sections, and may be developed in the valleys by wells and power for pumping. The only sprinkling done is in one section, and the county is not taxed for that specific purpose, as it is done by subscription entirely. The results are entirely satisfactory, and though

the taxpayers have requested the Board of Supervisors to take hold of the matter, so far nothing has been done.

The roads through the valley and low hills are by nature very good, but in the mountains they are constructed on very poor lines. No attention has been paid to drainage, and as a consequence they become almost impassable during the rainy season.

Much unnecessary work was observed on the roads of the county.

There are several bridges in this county, but no reliable data as to their cost were obtainable.

Mining and irrigation ditches cross the roads frequently, and in many instances interfere with travel, and often are not bridged, the water being allowed to run and destroy the roadbed.

Many miles of trails are kept up by the Road Commissioners in the mountains, and are expensive to maintain.

The rainfall varies with the elevation, increasing from 20 inches in the valley to over 60 inches on the summit of the Sierras, much of the latter being precipitated in the form of snow.

PLUMAS COUNTY.

Organized: 1854.

Area: 2,361 square miles.

Visited: December 9, 1895, by Commissioner Manson; August 23, 1896, by Commissioner Irvine.

Mileage: 414.

Improved: Data not obtainable.

Title and Records: Title to the major portion of the mileage is good, being secured by purchase, condemnation, and grant. All surveys, with maps, are recorded, and the system is kept up.

Manner of Construction and Maintenance: By day's labor, under supervision of Deputy Road Commissioner principally.

Accounts: Are kept against each road district, as the supervisory districts are subdivided.

Raising Money: By direct taxation on all outside property, and by road poll tax. Part of funds carried under highway fund account, and transferred as necessity arises.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895.....	40	\$23,153 71
1894.....	40	18,739 31
1893.....	40	14,776 88
1892.....	38	13,908 55
1891.....	38	14,726 26
1890.....	35	12,960 23
1889.....	25	12,288 09
1888.....	25	11,189 61
1887.....	30	14,172 18
1886.....	33	13,582 41
Total .....	.....	\$149,497 23

Plumas County is bounded on the north by Shasta and Lassen, on the east by Lassen, on the south by Sierra, Yuba, and Butte, on the west by Butte and Tehama counties. It is a mountain county, in the heart of the Sierras, and rises to an elevation of 10,577 feet at Lassen Peak. It is traversed by mountain ranges interspersed with cañons, valleys, and high rolling hills.

Road-building material is plentiful in almost every portion of the county. Gravel abounds in all the streams, while trap, basalt, limestone, shales, and serpentine are found in the ranges.

The numerous streams, ditches, lakes, and reservoirs furnish an unlimited supply of water for sprinkling purposes, though none of it has ever been utilized.

The mountain grades could be materially reduced by relocation. One of the most notable examples of a proper survey being made before construction is in this county. A new road has been located, and is in course of construction between the Twenty-Mile House and Quincy, which saves a distance of 5 miles, and does not reach so high an elevation by 273 feet as the old road, while the steepest grade does not exceed 12 inches to the rod. In this old road, that has been in use for at least forty years, and is 5 miles longer than the new, there are many places where the grade is more than 3 feet to the rod. Plumas County can justly boast of one of the best mountain roads in the State. It lies between Quincy and Crescent Mills. It is located on the easiest lines and over a material that makes a good natural road. For a short distance it has been macadamized with waste material from one of the large mines, and is as smooth as any road met with in the travels of the Commissioners.

Bridges span all the principal streams, and some very expensive structures have been erected.

This county, like Sierra, is covered with snow for many months in the year, and the only means of communication is on snowshoes.

The average rainfall is 52 inches, and while the greatest precipitation occurs from October to April, showers are not infrequent during the other months of the year.

RIVERSIDE COUNTY.

Organized: 1893.

Area: 7,008 square miles.

Visited: January 31, 1896, by Commissioners Maude and Irvine; August 24, 1896, by Commissioner Maude.

Mileage: 700.

Improved: No miles macadamized; no miles graveled; no miles sprinkled; 40 miles graded.

Title and Records: The majority of roads are such as were laid out by San Diego and San Bernardino counties, out of which the county was created, and the titles to the roads of those counties have never been duly recorded. No effort has been made to better them, nor secure good titles to roads laid out since organization of the county.

Manner of Construction and Maintenance: Maintenance by day's labor. Contract system successfully used in construction.

Accounts: Are well kept. Complete poll tax list kept.

Raising Money: By direct taxation on outside property, and by poll tax.

Amount Expended in Past Three Years.

Year.	Rate in Cents per \$100.	Amount.
1895	18	\$22,521 79
1894	17	28,661 17
1893	25	39,133 53
Total		\$90,316 49

Like San Bernardino County, Riverside County may be divided into two separate classes, the smaller part of the county comprising the settled portion, the eastern part being so-called desert and arid land, not yet placed under irrigation, and where roads of importance will not be constructed for many years to come.

There are in this county deposits of limestone, porphyry, granite, disintegrated granite, and other materials suitable for road-metaling.

Water is, unfortunately, not available for sprinkling purposes in the larger portion of the county.

The construction of roads in the county embraces proper cross-sectioning and surfacing of the roadway with available road-metal, and, in many instances, the construction of permanent culverts.

The rainfall cannot be considered a serious drawback to road maintenance, amounting, as it does, to but 9 or 10 inches per annum in the settled portion, decreasing to less than 2 inches on the desert.

But little can be said of the conduct of road affairs in Riverside County, owing to the fact that the county has been organized for so short a time. It would, however, seem that a county so lately organized would not have the difficulties to contend with found in older counties. It is to be regretted, however, that no systematic effort seems to have been made in this county, aside from the relocation and construction of what is known as the "Box Springs" road, which, constructed under engineering supervision, is probably one of the best roads in the State.

Many of the roads are of exceedingly faulty location and construction. This is notably the case on the road from South Riverside to Santa Ana, Orange County, where, on account of erosion, caused by faulty cross-section and lack of proper drainage facilities, the line of road has to be changed from year to year in many instances.

SACRAMENTO COUNTY.

Organized: 1850.

Area: 1,007 square miles.

Visited: August 10, 1895, by Commissioners Manson and Irvine; October 12, 1896, by Commissioner Irvine.

Mileage: 1,500, approximately.

Improved: 3 miles macadamized; 50 miles graveled; 70 miles sprinkled; 800 miles graded.

Title and Records: Title to three quarters of the mileage is imperfect, but since 1891 deeds have been obtained and recorded, title being obtained by purchase, condemnation, or grant. Records of roads constructed since 1891 are in good condition, but previous to that date are not in such shape as to be reliable.

Manner of Construction and Maintenance: By day's labor, under supervision of Road Commissioner.

Accounts: Are kept against two districts, as the supervisorial districts are not subdivided.

Raising Money: By direct taxation on all outside property, and by road poll tax and railroad tax. Transfers also made from general fund for bridge construction and maintenance.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	25	\$48,023 24
1894	25	44,253 32
1893	25	68,719 63
1892	20	42,638 79
1891	20	34,657 51
1890	20	34,755 48
1889	25	45,087 07
1888	25	44,965 10
1887	20	32,837 44
1886	20	28,359 37
Total		\$424,296 95

Sacramento County lies east of the lower portion of the Sacramento River, which forms the west boundary of the county for 70 miles, from which it extends to the foothills of the Sierras. The section of the county next the river is low and marshy, and subject to overflow, and is from 10 to 20 feet above tide; next above this lies an alluvial bench, which rises gently into the foothill region.

The county is well supplied with road-building material. Next to the foothills the soil is gravelly, and deposits of very hard cobbles are available for crushing into macadam.

The alluvial lands are readily drained, and can be supplied with excellent macadam from Folsom.

The county receives a mean rainfall of from 15 to 24 inches. In the lower portions, wells furnish an abundant supply for sprinkling purposes.

The bridge system of the county is extensive and costly. The Sacramento River separates it from an extensive and fertile country to the west, and the American and Cosumnes rivers and smaller streams flow through the county from east to west, necessitating long and costly bridges. The roads approaching these bridges are frequently impassable for weeks during the rainy season, and hence, these costly structures do not always subserve their purpose.

Where the roads have been graded, the grade line generally follows the contour of the country, instead of cutting off slight rises and filling slight depressions so as to put the roadbed on a true grade line. This work has cost as much as if properly done, and can be corrected only by being done over. Wooden culverts prevail, and these are a never ending source of expensive repair and renewal.

SAN BENITO COUNTY.

Organized: 1874.

Area: 1,476 square miles.

Visited: December 5, 1895, by Commissioners Irvine and Maude; July 20, 1896, by Commissioner Maude.

Mileage: Approximately, 600. The mileage has never been ascertained, and as there are no records bearing on the subject, an approximation only can be made.

Improved: No miles macadamized; 20 miles graveled; no miles sprinkled; 200 miles graded.

Title and Records: In nearly all cases title is defective. There are no deeds or records. Title is generally obtained by usage. Of late years a slight effort has been made to obtain deeds. The provisions of the Codes seem generally to be ignored. The minutes of the Board of Supervisors are defective. The road book is improperly kept. Other records do not seem to have been kept or indexed, so as to be available.

Manner of Construction and Maintenance: By day's labor. Contract system seems to have never been tried for either construction or maintenance.

Accounts: Are only kept by means of vouchers, which are so indefinite as to be unintelligible.

Raising Money: By direct taxation, road poll tax, and transfers from general fund to road funds.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	22	\$12,135 59
1894	20	11,300 04
1893	20	11,178 00
1892	26	16,281 35
1891	28	17,908 88
1890	26	15,343 77
1889	22	13,856 76
1888	20	12,678 73
1887	20	10,947 24
1886	*	†10,201 00
Total		\$131,831 36

* No records showing rate. † \$1,201 poll tax; balance approximated.

Topographically, the greater portion of the county is either hilly or mountainous. The more densely settled part is, however, valley land and level.

Gravel of superior quality exists in all localities and in great quantities, being found in the streams and in "pits." Granite is found, but is of a soft nature. Disintegrated granite also occurs, and is a good substitute for gravel. Limestone of a good quality, and suitable for road-metal, is encountered in the major portion of the county. It is particularly abundant in the cienega country. Hard, igneous rocks, suitable for road-metal, also exist in small quantities. In Lone Tree district a shale is found that hardens by exposure to the air, and has good cementing qualities. It has been tried to a slight extent and gave excellent results.

Water for sprinkling can be obtained in nearly all localities in the county. The annual rainfall is 12 inches, from November to April.

The soil conditions of the broken portion of the county are favorable to the construction of dirt roads. In many portions of the valley, owing to the prevalence of adobe soil, this is not the case.

An absolute change in the highway management of this county is necessary. The majority of the roads in the hilly portion should be abandoned, and an entirely new location should be adopted, along proper grades, with due regard to proper drainage by means of culverts and ditches. The valley roads require considerable drainage and surfacing with metal.

Maintenance of the hill and mountain roads depends merely on protection from erosion. The valley roads must be sprinkled. The proper location and construction of culverts is of the utmost importance. Those now in use are generally of a size far greater than necessary, thus largely increasing the cost of road construction. They are often so unskillfully located as to be absolutely useless for the purposes intended, and in most cases are constructed of material so perishable in character as to last but a few years. This can be remedied by the use of vitrified pipe for the smaller culverts, and brick, stone, or concrete arches for the larger ones. The expense of such construction is somewhat greater than is that of wooden culverts; but, being of a permanent nature, and requiring no further expenditures in the way of repairs, the suggested improvements would be far cheaper in the end.

Some years ago sprinkling was tried, with very satisfactory results. Unfortunately, with a change of the administration of the county's affairs, there came a lapse into the old rut; sprinkling was abandoned, upon the plea that it had not been found necessary in early days, and was extravagant; the apparatus for sprinkling was even offered for sale; but, fortunately, public sentiment, which had not been strong enough to compel a continuation of sprinkling, prevented the sale of the sprinkling

plant; it stands to-day decaying, a monument to former progressive road management.

The Board of Supervisors of this county seems to ignore the Surveyor and his statutory duties entirely. As a consequence, no data were available from this source—a source from which, in most counties, much information is obtainable.

SAN BERNARDINO COUNTY.

Organized: 1853.

Area: 20,055 square miles.

Visited: February 1, 1896, by Commissioners Maude and Irvine; August 21, 1896, by Commissioner Maude.

Mileage: 800.

Improved: 4 miles macadamized; 2 miles graveled; 6¾ miles sprinkled; 60 miles graded.

Title and Records: Records in very faulty condition. (See further remarks below.) Fairly complete for past ten years only.

Manner of Construction and Maintenance: Generally by day's labor, both for construction and maintenance. Contract system for maintenance has been tried, but has proved very unsatisfactory.

Accounts: In poor condition. Only current year's accounts can be ascertained. No definite segregation of expenditures. Previous to 1888, accounts are especially faulty and very negligently kept.

Raising Money: Direct taxation on outside property. Poll tax for years 1888, 1889, 1890; no poll tax since 1890; previous to 1888, records are in such shape that it is impossible to ascertain whether poll tax was levied.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	25	\$24,410 94
1894	15	19,853 46
1893	15	24,428 23
1892	20	46,640 60
1891	30	52,351 04
1890	35	30,000 96
1889	20	44,656 66
1888	25	22,820 05
1887	20	*10,000 00
1886	25	*6,250 00
Total		\$281,411 94

* Approximately.

This county, the largest in the State, and one of the wealthiest, in so far as the settled region is concerned, may be said to have its settlements and roads embraced entirely within the extreme southwest portion of the county, embracing about 8% of the total area. The remainder of the county is composed of desert and wild, rugged mountains, abounding in mineral wealth.

The roads of the settled part of the county may be subdivided into

two classes, viz., valley and mountain roads, the valley roads traversing the more densely populated portion of the county. The soil conditions of the valley are very favorable to the construction and maintenance of roads. There are available in the county, for surfacing these roads, an excellent quality of limestone, disintegrated granite, and numerous deposits of boulders of a granitic character, which can be readily crushed into good road-metal. Red clay has been used in the county as a top dressing for roads, and has proved a success.

All of the roads, where possible, should be sprinkled. Water is obtainable in many instances from irrigation systems.

In the case of the mountain roads, the matter of grading and location is of prime importance, maintenance in most instances being limited to the protection of the roads from erosion by winter rains.

Roadside tree-planting upon systematic lines should be encouraged over the valley portions of the county. These trees, in most instances, should be of a deciduous nature.

The rainfall being but slight in the valley portions of this county, drainage is of secondary importance.

The records of this county are in a deplorably faulty condition; there being ascertainable titles to but 125 miles of road. Until the incumbency of the present Board of Supervisors, no really systematic effort seems to have been made at road improvement, although large sums of money have been expended on the highway system.

To the present Board is due the credit of the inception of sprinkling. The cost of this, as ascertained, is \$5,000 per annum for $6\frac{3}{4}$ miles of road, or \$740 per mile per annum. This, when compared with less than \$100 per mile per annum expended for the same purpose in Santa Cruz County, seems excessive. It is hoped, however, that by longer experience, and a further development of this system, the cost of sprinkling can be greatly reduced.

The use of permanent material in the construction of culverts and small bridges is recommended. The use of asphalt as a flooring for bridges would prove a success in this county.

SAN DIEGO COUNTY.

Organized: 1850.

Area: 8,400 square miles.

Visited: January 25, 1896, by Commissioners Irvine and Maude; August 31, 1896, by Commissioner Maude.

Mileage: 5,000, approximately.

Improved: No miles macadamized; no miles graveled; no miles sprinkled; 40 miles graded.

Title and Records: Are in a generally faulty condition.

Manner of Construction and Maintenance: Contract system for construction; day's labor for maintenance.

Accounts: Are in good condition.

Raising Money: By direct tax on outside property, and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895.....	35	\$28,094 25
1894.....	35	25,284 71
1893.....	35	27,419 97
1892.....	30	31,431 30
1891.....	40	41,655 77
1890.....	30	33,733 18
1889.....	30	27,300 17
1888.....	32	135,776 08
1887.....	20	29,459 66
1886.....	25	13,696 60
Total .....	.....	\$393,351 69

San Diego is the most southerly county in the State, being bounded on the south by Mexico, the Colorado River forming its eastern boundary. The county may be classified into three distinct belts, beginning at the coast, and extending to the eastern confines of the county. These are the coast-line, about 75 miles in length, running back to the hill country, a distance of about 30 miles, composed of low valleys, interspersed with intervening table-lands and hills; the second division includes the mountains, while the third is the so-called desert, which covers about two thirds of the area of the county. In the desert are to be found depressions 250 feet below sea-level, while the mountain elevations reach nearly 11,000 feet above the sea.

In considering the road problem in this county it will be necessary to deal with the two first-mentioned sections alone, for the reason that the settlements on the desert portion are widely separated and of but small importance, and until irrigation makes this portion of the county capable of cultivation, road affairs will be of minor importance.

The first section is what is known as the semi-tropic fruit-growing portion, the home of the horticulturist. In this locality the land holdings are small, rarely exceeding ten acres, and as a consequence a large population is concentrated over a comparatively small area. This district demands first attention in the matter of highway construction. The soil, in most cases, in this region is of a nature exceedingly favorable to road construction, as mud rarely occurs during the winter season, at which period the rainfall in this locality is but 10 inches per annum. The varied character of the soil also forms a basis for good roads, as, by a proper admixture of the heavier adobe soils with the lighter sandy soils, a good road surface may be formed. The great difficulty to be contended with is the heat and dryness of the summer, which cause the roads to become excessively dusty. The best remedy for this is sprinkling, but, unfortunately, it is exceedingly difficult to procure water for sprinkling purposes in many localities, and, even where procurable, it entails a heavy expense to the county. As a consequence, it is suggested

that, where possible, the road be surfaced with some non-wearing material, of which the supply is varied and plentiful in the county. Gravel abounds throughout the county, in the beds of streams and on hillsides. Regular deposits of cement gravel, which would make an excellent road-surfacing material, occur at Otay. Granite, both disintegrated and solid, is found in various localities. Limestone, trap, and basalt are available in different places.

A systematic effort should be made at roadside tree-planting. These trees should be of a deciduous nature, in order to shield the roads from the heat of summer, while in winter no obstruction will be offered to the sun's action in drying up excess moisture.

In the mountainous portion of the county the main requisite for road construction is proper location upon easy grades, and maintenance by proper ditching and other means which will prevent the erosion of roads by rain. In this section the rainfall averages 35 inches, and the roads, as a general rule, are fairly well shaded by the natural growth of timber. The region being more of an agricultural and pastoral one, the population is less dense, and the traffic consequently much less.

The mileage of roads in this county seems to the Bureau to be excessive. As nearly as can be ascertained, there are now 5,000 miles of highways within the limits of the county, many of which are of such slight importance that they should be entirely ignored. The result of attempting to maintain such a vast mileage of roads in this county is that no properly improved road exists within the entire county.

Some time since, the County Surveyor was directed by the Board of Supervisors to make a reconnaissance survey of the road system of the county. This was carried on until some 3,600 miles had been measured and approximately located. For some reason this exceedingly useful survey has been ordered discontinued. It is to be hoped that it will ultimately be carried to completion, and such roads as are not absolutely necessary for *real* public convenience be discontinued or abandoned. By so doing a large sum of money will be conserved, which might be utilized upon more important roads.

SAN JOAQUIN COUNTY.

Organized: 1850.

Area: 1,370 square miles.

Visited: July 22, 1895, by Commissioners Manson and Irvine; July 11, 1896, by Commissioner Maude.

Mileage: Approximately, 950 miles. The mileage has never been ascertained by the local authorities, and records are deplorably incomplete.

Improved: No miles macadamized; about 25 miles graveled; 45 miles sprinkled; about 200 miles graded; 11 miles of adobe road sanded.

Title and Records: Probably 80% of the titles defective. Of late, the records have been more carefully kept. There is a road book dating from 1854, which has been irregularly written up. The minutes of the Board of Supervisors are very incomplete

previous to 1890. Records are filed in Clerk's office, but are not indexed in such a manner as to be available.

Manner of Construction and Maintenance: By day's labor in almost all instances. The contract system is not found satisfactory for maintenance.

Accounts: No detailed accounts of expenditure are kept; the only record being the vouchers, which are filed with the Clerk.

Raising Money: By direct taxation, and road poll tax. Some few instances of transfers to the road fund from other funds.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	18	\$38,033 76
1894	17.5	41,785 03
1893	17.5	47,053 81
1892	18	45,442 31
1891	20	44,576 76
1890	18	50,511 12
1889	18	51,864 18
1888	20	58,203 94
1887	20	46,902 83
1886	10	23,629 34
Total		\$448,003 08

The county lies entirely in the great interior California valley. The greater portion of it is level, excepting the foothill region of the Sierra Nevada range, which bounds the county on the east, and the base of the Coast Range on the southwest. Along the Sacramento and San Joaquin rivers, in the northwestern portions of the county, are large stretches of tule lands, all of which, with the exception of those parts protected by levees, are subject to overflow.

There are available deposits of gravel in Mormon and French Camp sloughs. There is an abundance of adobe and sand for puddling purposes in the greater portion of the county. Water is also readily obtainable in the natural waterways and wells. The rainfall averages from 18 to 20 inches yearly, precipitated from November to April.

During the summer months the roads are subjected to great heat, particularly as the county is not naturally timbered; and there has been no systematic effort made at roadside tree-planting. The soil conditions are such that the rainfall renders the roads impassable during the rainy season on account of mud, while the unrestricted action of the sun during the summer months makes the grinding of the roads into dust a certainty. The result is that, though the roads are not so impassable at this time of the year as when in a muddy condition, an unnecessarily heavy charge is laid on transportation.

Two factors enter into the proper construction of a highway system for this county; first, a proper drainage of the roadbed; secondly, the surfacing of the road with some substance other than the natural soil, such as gravel, coarse sand and adobe, or, preferably, macadam. Upon

the construction of such a road, the proper method of maintenance, aside from the replacing of displaced or worn-out road metal, is by sprinkling and the planting of roadside trees to conserve the moisture artificially applied. Such trees should be of a deciduous nature, in order that their foliage may shield the road surface from the direct action of the sun, while in the winter the bare limbs offer no obstruction to its play, and permit the rapid evaporation of excess moisture. Another need of the county is the construction of culverts by the use of permanent material, such as stone, pipe, or brick or concrete arches, and in the location of these culverts greater care should be exercised than has been in the past. Many of the existing culverts are larger than necessary; others are so located as to serve no purpose other than that of carrying the water from one side of the road to the other. Provision should also be made for the proper carrying away of the water which now stagnates in the ditches on account of the lack of grade.

The only roads in the county of a permanent character of construction are the former toll roads, which, constructed under corporate direction, were originally of a commendable character, but, having reverted to the county, are rapidly deteriorating.

SAN LUIS OBISPO COUNTY.

Organized: 1850.

Area: 3,500 square miles.

Visited: December 16, 1895, by Commissioners Maude and Irvine: July 27, 1896, by Commissioner Maude.

Mileage: About 1,050.

Improved: 10 miles macadamized; 6 miles graveled; 6 miles sprinkled; 20 miles properly graded.

Title and Records: There has been a systematic effort in this county to rectify titles. The records from 1869 to date have been abstracted by order of the Board of Supervisors. Previous to that date there are no records. Title is now obtained by a strict following of the law and the taking of an absolute deed.

Manner of Construction and Maintenance: By day's labor and contract. Contract for construction has proved very effective.

Accounts: Accounts are kept on county vouchers, which are well itemized and generally intelligible.

Raising Money: By direct taxation, road poll tax, and by license fund, which is transferred *in toto* to unapportioned road fund.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	25	\$45,304 53
1894 -----	25	45,492 42
1893 -----	28	52,322 16
1892 -----	25	52,087 06
1891 -----	25	41,242 11
1890 -----	27	46,652 96
1889 -----	25	44,710 42
1888 -----	35	*47,296 54
1887 -----	35	*38,182 08
1886 -----	28	*23,339 83
Total -----		\$436,630 11

* Years 1886, 1887, and 1888 approximated; records of exact amounts unobtainable.

Topographically, the greater portion of the county is mountainous, but a small section being valley land, and this of a rolling character.

Gravel is generally found throughout the county. Disintegrated granite is available between Cuesta and Santa Margarita. Hard granite is found, running from Moro Rock throughout the county. Trap rock of excellent quality is found in practically the same location. Bituminous rock exists in quantities throughout the county. A red rock, excellent for road-building purposes, is found in Cuesta Pass and adjacent to Port Harford. In short, the county is exceptionally favored with good road-building material, readily accessible.

The methods of preserving records in reference to road matters in this county are particularly worthy of commendation.

Water for sprinkling can be obtained adjacent to San Luis Obispo and in some few other sections of the county.

The average annual rainfall is 21.07 inches.

The general soil and climatic conditions of this county are favorable to road construction and maintenance.

On account of the topographical conditions of the county, previously referred to, the matter of grading is an important element to be considered in road-building.

The mountain grade over Cuesta Pass is particularly noteworthy as being one of the best graded and surfaced roads in the State. Great care and engineering ability have been exercised in its location and grade, and have since been shown in its maintenance. The road from San Luis Obispo to Port Harford is also worthy of commendation, being the first road in the county on which a systematic effort has been made at road-sprinkling.

SAN MATEO COUNTY.

Organized: 1856.

Area: 470 square miles.

Visited: July 12, 1895, by Commissioners Manson and Irvine; September 12, 1896, by Commissioner Maude.

Mileage: 334.

Improved: 68 miles macadamized; 32 miles graveled; 66 miles sprinkled; nearly all graded.

Title and Records: Title to roads rests on prescriptive use in older roads. Titles obtained in the manner prescribed by law, and recorded of late years.

Manner of Construction and Maintenance: Materials are hauled by contract; roads maintained by day's labor. Road-sprinkling well developed around Redwood City, San Mateo, Menlo Park, and other centers.

Accounts: Are not well segregated. No list of road machinery kept.

Raising Money: By property and poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	39.5	\$61,114 41
1894	37.7	65,947 27
1893	38.4	62,701 15
1892	34	53,352 97
1891	40	59,732 66
1890	40	53,105 60
1889	27	37,489 73
1888	25	36,757 85
1887	30	34,879 96
1886	34	31,357 47
Total	-----	\$496,439 07

San Mateo County lies between the southern arm of San Francisco Bay and the Pacific Ocean, fronting about 30 miles on the bay and about 60 miles on the ocean. The Santa Morena Mountains extend through the entire length of the county and reach an elevation of 2,500 feet. The slopes, spurs, and outliers of this range constitute the greater part of the county. About one sixth of the area next the bay shore is level and lightly rolling land of great value. Most of the land is rolling and timbered. Numerous narrow valleys extend parallel with the Santa Morena. The county is splendidly watered, and affords catchment and storage areas for the greater portion of the water supply of San Francisco.

The streams on the west slope are perennial, and their drainage areas are well timbered. Being exposed to moist, rain-bearing winds, the rainfall is large, reaching 50 inches as a maximum, and rarely falling below 20 inches. On the eastern slope and bay shore the rainfall is less, and averages 20 inches.

Water for sprinkling roads is purchased from the water companies at

rates of from 8 to 17½ cents per thousand gallons. In Districts 2 and 3 excellent results are obtained. The wagons sprinkle from 8 to 10 miles per day per wagon.

Road-building materials are obtainable in the large creeks, and volcanic and metamorphic rocks are exposed at numerous localities. A quarry has been opened near Redwood City, and the county owns and operates a jaw-crusher with a capacity of 100 cubic yards per day, at a cost of 25 cents to 30 cents per cubic yard. Distribution of material is done by contract, with good results. West of Belmont an excellent variety of red jasper occurs, which is being utilized. The advantages accruing from good roads are fully realized, and has produced marked effects in the eastern part of the county.

Data regarding mileage of roads could not be obtained.

SANTA BARBARA COUNTY.

Organized: 1850.

Area: 2,450 square miles.

Visited: December 21, 1895, by Commissioners Irvine and Maude; August 1, 1896, by Commissioner Maude.

Mileage: Unknown, probably 1,200.

Improved: No miles macadamized; no miles graveled; about 12 miles sprinkled; 50 miles graded.

Title and Records: Title to old roads exists by usage. The method of obtaining title as prescribed in the Codes is regularly followed. An abstract of all records is kept by the Clerk. The records, so far as they exist, have been filed and indexed in a systematic manner. Titles are in better condition for roads laid out of late years. For these roads deeds have been taken.

Manner of Construction and Maintenance: By day's labor. County prisoners have been worked with good results.

Accounts: Previous to incumbency of present Auditor, accounts were in a deplorable condition and unintelligible. Vouchers are filed with Clerk.

Raising Money: By direct taxation and road poll tax; exact records of the latter levy not, however, obtainable.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	35	\$38,026 23
1894	35	54,865 60
1893	40	49,778 78
1892	40	32,821 05
1891	40	41,681 55
1890	40	39,446 60
1889	30	30,000 00
1888	25	30,000 00
1887	30	30,000 00
1886	37	30,000 00
Total		\$376,619 81

On account of poor condition of accounts, the figures given for years 1886 to 1889 had to be obtained by approximation.

Situated as it is, entirely within the Coast Range, Santa Barbara County may be classed as mountainous. The exceptions to this are a narrow strip of land skirting the coast and small interior valleys, which are generally of a rolling nature.

There are in the county available deposits of granite, limestone, disintegrated granite, bituminous rock, and asphaltum.

Water is obtainable through the majority of the valleys and on the coast from natural watercourses and by means of wells.

The soil conditions are generally favorable to dirt road construction, the soil in most instances being of a granitic nature, as a consequence of which the rainfall, which averages but 18 inches annually, is not detrimental.

In the proper construction of a highway system for this county, location and grading are the prime factors, as it will readily be seen that the majority of roads in this county are mountainous in character. The location should always be considered from the standpoint of economical maintenance, and not of primarily economic construction. In no instances should these mountain grades exceed 8%, and due attention should be paid to the construction of drain ditches and culverts to prevent the washing of the road away.

Between the first and second trips of inspection made by the Bureau a marked improvement was noticed in the matter of construction and location of culverts. These had previously been very faulty in construction and location.

Through the valley lands roadside trees should be planted where practicable.

Adjacent to some of the cities in the county an extension of sprinkling is recommended.

The Board of Supervisors of this county is to be particularly commended upon the inauguration of a systematic effort which they have made toward the erection of guide-posts and mile-posts, as well as upon the utilization of a complete system of blank forms relating to highways, their condemnation, location, construction, etc., now in use in the county.

County prisoners have been successfully employed upon road work, notably upon the Mission Cañon road. The continued utilization of this labor is recommended.

The successful use of bitumen as a surfacing material, without a concrete foundation, by the City of Santa Barbara, is worthy of mention. It could be successfully employed upon the road from Santa Barbara to Montecito, the temperate and equable climate of this coast strip being especially adapted to its use.

There is one section of particularly faultily graded road about 2 miles from Carpinteria, between that town and Ventura, the grade rising

abruptly toward the summit from 8% to about 20%. It is difficult to comprehend why this sudden rise could not have been properly distributed along the road, or, better still, why the road was not located around the hill instead of over it.

SANTA CLARA COUNTY.

Organized: 1850.

Area: 1,355 square miles.

Visited: July 15, 1895, by Commissioners Manson and Irvine; September 18, 1896, by Commissioners Manson and Maude.

Mileage: 775.

Improved: 3 miles macadamized at private expense; 400 miles graveled; 270 miles sprinkled; 775 miles graded.

Title and Records: Titles to roads rest on occupancy and use for early roads, and upon deeds and maps filed in office of the Board. These records are quite voluminous, and are in bad shape for preservation.

Manner of Construction and Maintenance: Road construction and delivery of gravel generally by contract. Maintenance by day's labor.

Accounts: Are in excellent condition; kept by road districts.

Raising Money: By property tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	30	\$103,633 59
1894	30	108,243 19
1893	30	105,393 63
1892	30	104,976 45
1891	30	100,613 97
1890	30	97,673 03
1889	30	100,635 67
1888	25	84,805 09
1887	30	79,532 93
1886	30	74,869 07
Total .....	.....	\$960,376 62

Santa Clara County lies at the head and on either side of the southern arm of the Bay of San Francisco, and extends from the crest of the Coast Range to the crest of the Santa Cruz Mountains. About one fifth of the entire area of the county is nearly level; the remainder is rolling and mountainous, the higher peaks rising to elevations of 4,200 feet in the Coast Range and 3,800 feet in the Santa Cruz Mountains.

The county is fairly well watered; some of the streams from both sides of the valley are perennial; artesian water is found over a large area near Santa Clara. The rainfall is dependent upon altitude and exposure, ranging between 50 inches in the exposed peaks and 12 to 15 inches in the drier portions of the valleys.

Water for road-sprinkling is developed to a sufficient extent to sprinkle

about 270 miles of road—about half the mileage that is sprinkled in the rest of the State.

Road-building materials occur in numerous localities. Gravel of a fair quality is abundant in the streams from both ranges, and is largely utilized. Supplies for repairing during the wet season are hauled during the dry months and stored at convenient localities. Volcanic and metamorphic rocks occur in the foothills of the Santa Cruz (Santa Morena) Mountains, and variously colored jasper occurs in the Coast Range. An extensive bed of asphaltum exists at Sargent's Station, in the southern end of the county. These materials have been utilized in the construction and maintenance of more than one half of the mileage of roads in the county, and the results of this work are apparent in the high value of lands.

Conditions for good roads are favorable, and the county officials have recognized and made use of these conditions to a greater extent than in other portions of the State.

The economy of permanent bridges is beginning to be recognized, and some of the smaller streams are spanned by concrete and masonry bridges.

SANTA CRUZ COUNTY.

Organized: 1850.

Area: 425 square miles.

Visited: December 7, 1895, by Commissioners Irvine and Maude; September 15, 1896, by Commissioner Maude.

Mileage: About 400 miles.

Improved: $1\frac{1}{4}$ miles macadamized; 10 or 15 miles graveled; 97 miles sprinkled; nearly all well graded.

Title and Records: Probably 30% of the titles are defective. In the past few years an effort has been made to rectify the defective titles. The method of obtaining title is, in general, the method prescribed in the Codes, through the appointment of viewers, condemnation, etc. The records existing are carefully preserved, and are indexed, but an improvement in the system of indexing should be made. A road book is kept, but in poor shape.

Manner of Construction and Maintenance: Day's labor and contract have both been tried successfully in the county.

Accounts: No accounts are kept, other than the county vouchers, which are carefully itemized.

Raising Money: Money is raised by direct taxation, poll tax, and transfers from the county fund to the various district funds.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	40	\$30,853 90
1894	40	30,886 54
1893	35	29,009 58
1892	40	31,213 12
1891	40	30,235 12
1890	40	30,104 16
1889	40	30,553 70
1888	25	22,153 67
1887	28	20,102 56
1886	33	22,671 18
Total		\$277,783 53

Santa Cruz County lies around the northern half of the Bay of Monterey, having a coast-line of some 40 miles upon this bay and the adjacent ocean to the north. It rises from tide level to the summits of the Santa Cruz and Santa Morena Mountains, reaching altitudes of between 2,000 and 4,000 feet. That portion of the county in the extreme southern part bordering Monterey County, in the valley of the Pajaro River, and a portion of the coast and plain, are level or slightly rolling, the remainder being rolling and mountainous.

The entire county is well watered, the rainfall varying between 20 and 50 inches. The greater portion of the rolling and mountainous land is well timbered, and perennial streams flow from both ranges of mountains. The water supply for road-sprinkling has been developed sufficiently to sprinkle daily nearly 100 miles of road, and the largest and most efficient sprinkler in the State was built between the first and second visits of the Commissioners.

Road-building materials exist in abundance and great variety, bituminous rock from this county being transported to distant points for street-paving and suburban road-building. Volcanic and metamorphic rocks afford material for macadam, and all the larger creeks yield excellent gravel, which, if screened, makes good road-surfacing material.

Permanent road construction has been commenced in the county, and the Board of Supervisors has located and permanently constructed many miles of well-graded, well-drained roadway, which work has appreciated the value of adjoining property and served as a stimulus to further road construction.

Permanent structures have been built in the place of many temporary culverts and bridges. Road-building throughout the county is in a more advanced and better state than in the majority of counties throughout the State.

SHASTA COUNTY.

Organized: 1850.

Area: 4,050 square miles.

Visited: November 6, 1895, by Commissioners Manson and Irvine; July 13, 1896, by Commissioner Irvine.

Mileage: 1,500.

Improved: No miles macadamized; 25 miles graveled; no miles sprinkled; 410 miles graded.

Title and Records: Title is very imperfect, though for all new roads they endeavor to get deeds to rights of way. Title is secured by purchase, condemnation, and grant. Records are not in good condition, as only a very small percentage of roads is recorded.

Manner of Construction and Maintenance: By day's labor, under supervision of Road Commissioner and District Roadmasters.

Accounts: Are kept in good condition against five road districts, as supervisorial districts are not subdivided.

Raising Money: By direct tax on all outside property and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	25	\$21,844 72
1894	25	19,011 95
1893	25	18,148 44
1892	25	17,540 59
1891	30	20,107 02
1890	30	15,875 45
1889	35	14,400 40
1888	22	13,862 77
1887	31	12,682 08
1886	26	11,910 00
Total .....	.....	\$165,383 42

Shasta County is divided by the Sacramento River, three fourths being on the east side and the remainder on the west side. It lies north of Tehama, and extends from the crest of the Coast Range, 7,776 feet above tidewater, on the west, to the Black Buttes on the east. The surface is extremely mountainous, only a very small portion being rolling valley land.

Gravel for road purposes is plentiful in portions of the county, while granite, trap, and basalt abound in the northern part.

Water for sprinkling may be obtained by boring wells and pumping in the rolling valley lands, and can be readily secured in almost any part by gravitation from the numerous mining ditches throughout the county.

Toll-roads traverse the county, and are a great tax on the traveling community, though the Board of Supervisors is abolishing the toll-roads as rapidly as their franchises expire.

Such mountain grades as are public roads are poorly located and

expensive to maintain, and must be run on better lines before this county will reap the benefits to be derived from a thorough road system.

There has been a marked improvement in the road system since the first visit of the Commissioners, notably in the construction of culverts and small bridges, vitrified pipe being used entirely in place of wood.

Bills for road work are properly itemized, not only showing the district in which the work was done, but showing the road and specifying the location and character of the work done.

Many good bridges have been constructed, notably the one across the Sacramento River near Redding. There is invested in these structures, approximately, \$140,000, and many of them are in good condition.

The rainfall is enormous at times, and great damage is done to roads and bridges. The average rainfall is variable in various locations. At Reed's Camp, in the valley of the Upper Sacramento, it reaches 70 inches, or more, annually, while in the southern part of the county, the average is 35 inches, increasing as a higher elevation and more northerly location is reached.

SIERRA COUNTY.

Organized: 1852.

Area: 910 square miles.

Visited: December 5, 1895, by Commissioner Manson; August 21, 1896, by Commissioner Irvine.

Mileage: 500, approximately.

Improved: No miles macadamized; no miles graveled; no miles sprinkled; 200 miles graded.

Title and Records: Title to nine tenths of the roads is very imperfect. It is secured by declaration, purchase, and grant. Records are in very poor condition; in fact, nothing is available.

Manner of Construction and Maintenance: Day's labor, under supervision of Road Commissioner.

Accounts: Are kept against five districts.

Raising Money: By direct tax on all property and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895.....	40	\$7,071 72
1894.....	40	7,854 36
1893.....	41	8,357 52
1892.....	41	8,380 00
1891.....	43	8,296 90
1890.....	43	9,079 23
1889.....	36	8,763 79
1888.....	33	9,068 06
1887.....	33	8,944 15
1886.....	35	6,294 00
Total		\$82,109 73

Sierra County is bounded on the north by Plumas, on the south by Nevada, on the west by Yuba County, and on the east by the State of Nevada. It is extremely mountainous and rugged, with many small valleys lying up among the highest peaks. Sierra Valley, 5,000 feet above sea-level, is the largest area of level land, containing nearly 250 square miles.

Road material of almost every variety is plentiful. Gravel, granite, trap, basalt, and serpentine occur in different parts of the county, though very little has ever been utilized.

Water for sprinkling purposes in an unlimited supply may be developed along all the roads with very little expense. Numerous streams, ditches, and lakes abound throughout the county.

The Surveyor who was last elected never qualified; consequently, this county is without one of its most important officers, so far as road construction is concerned. Much necessary data was therefore unobtainable, as none of the other officials were posted.

Toll roads are numerous, and some of them are exceedingly well located, but they are narrow and in poor condition in a number of places. Tolls are collected, irrespective of the fact that franchises may have expired.

No attention is paid to roads if they interfere with a mining claim, and the answer received to the question as to methods of changing or altering roads was, "They turn a monitor on and blow them to pieces." Such is the case, as was ascertained by traveling over some almost impassable places where the road had been changed in this manner.

There are neither road maps nor records of any description showing the location of any of the roads.

There is one exceedingly good grade, from Downieville to Sierra City, that is well located, and, with more attention as to drainage, would be as good as many mountain grades. Many miles of trails are maintained, and are well located.

Snow covers the roads for weeks at a time, and the only means of communication is on snowshoes. The greatest amount of rain falls in the more elevated northwestern portion of the county, reaching 70 and 80 inches annually, snow falling to a depth of 20 feet; while, in the eastern part of the county, the annual rainfall diminishes, reaching its minimum of about 16 inches toward the Nevada border line.

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SISKIYOU COUNTY.

Organized: 1852.

Area: 6,078 square miles.

Visited: February 3, 1896, by Commissioner Manson; August 8, 1896, by Commissioner Irvine.

Mileage: 2,500.

Improved: No miles macadamized; 5 miles graveled; no miles sprinkled; 1,500 miles graded.

Title and Records: Title to at least 60% of all the county roads has not been obtained, and the roads have become the property of the county by sufferance. Title is acquired by purchase, condemnation, and grant. Records are in such condition that very little reliable data could be obtained for the older roads. Of late years, the road register is well kept, and all roads duly recorded.

Manner of Construction and Maintenance: By day's labor principally, though there are some contracts let under provisions of Section 2646 of the Political Code; but results are far from satisfactory.

Accounts: The supervisory districts are not subdivided, and the accounts are kept in each supervisory district.

Raising Money: By direct tax and road poll tax. Bridge bonds amounting to \$30,000 issued in 1890.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	25	\$27,918 89
1894	25	25,495 64
1893	20	20,153 39
1892	21.6	24,319 36
1891	20.4	22,837 16
1890	17	46,174 48
1889	13	15,095 77
1888	15.6	16,877 11
1887	15	11,123 26
1886	17	11,637 76
Total		\$221,632 82

Siskiyou County extends from Trinity on the south to the Oregon State line on the north. The Coast Range and Sierra Nevada Mountains meet in this county, and form an extremely rugged surface. About one sixth of its area is rolling and valley land, while the remainder is extremely mountainous, Mount Shasta reaching an altitude of 14,350 feet, standing at the head of the great California valley in this county. In the northeastern portion are extensive lava beds. Siskiyou forms a part of a high plateau, with an elevation of from 3,500 to 4,000 feet, extending into Modoc and Lassen counties, and surrounded by volcanic mountains.

1886 Road-building material is plentiful in all parts of the county. Gravel and in all the streams and in the valleys, while trap, basalt, limestone and quartzite are found throughout the plateau and mountains. Numerous mountain streams and mining ditches furnish an

unlimited supply of water by gravitation, while in the valleys water for road-sprinkling can be developed from wells and by pumping.

The soil in many sections is of a fine gravelly formation, and the roads constructed in these sections are extremely good, and easy to maintain. In fact, many miles of such road have never had one dollar expended upon them for maintenance or construction, the only expense necessitated being that for the construction of the culverts and small bridges across the waterways. The mountain grades are steep and poorly located, though some of the toll roads upon which the franchises have expired are constructed on easy grades.

Stock in the mountains cause great damage to the grades every year. In grazing over the mountains they cause the rocks and earth to be loosened and precipitated on the roadbed. The expense of repairing the road from this cause alone is very heavy.

Very little attention has been paid to drainage, and the snows and excessive rainfall, together with the irrigation ditches, cause many portions of the road to be annually washed away.

The great number of rivers and streams has required the construction of many bridges, which, in addition to the cost of necessary maintenance, has been a great expense to the county. The bridges, for which an issue of bonds was made in 1890, in addition to moneys taken from the general fund, are valued at \$60,000, though in reality they cost double that amount. This county has been unfortunate in its experience with bridges, for most of the bridges were faultily constructed, and, as a consequence, more money has been expended in repairing old bridges than would have been required to build new ones. In many instances the bridges have had to be entirely rebuilt in a short time after their construction.

Average rainfall, 33 inches. Heavy snows fall in the mountains and much in the valleys.

SOLANO COUNTY.

Organized: 1850.

Area: 911 square miles.

Visited: June 27, 1895, by Commissioners Manson, Irvine, and Maude; September 4, 1896, by Commissioner Irvine.

Mileage: 600.

Improved: 1 mile macadamized; 100 miles graveled; 30 miles sprinkled; 500 miles graded.

Title and Records: Title to about one half of the roads is good, balance being defective. It is secured by purchase, condemnation, and grant. Records are in good condition, the roads being mapped and filed.

Manner of Construction and Maintenance: By day's labor, under supervision of Road Commissioners and district overseers.

Accounts: Are kept against thirteen road districts.

Raising Money: By direct taxation on all outside property, and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	35	\$47,610 45
1894	30	45,299 44
1893	25	40,863 26
1892	25	40,540 28
1891	30	47,854 46
1890	25	42,236 80
1889	22	36,296 02
1888	23	46,941 60
1887	20	35,417 48
1886	19	31,919 24
Total		\$414,979 03

Solano County is bounded on the north by Yolo, on the east by Sacramento, on the west by Napa, and extends south as far as the Straits of Carquinez. The crest of the Vaca Mountains, rising to a height of 2,000 feet, forms the boundary line between Solano and Napa counties. Of its area, about 160 square miles are swamp and overflowed lands; the remainder is valley and rolling land.

The supply of road-building material is limited, though in the foothills large quantities of basalt are encountered. Gravel is found in deposits and in some of the streams. It is most plentiful in Putah Creek, which is the dividing line between Solano and Yolo.

Water for sprinkling purposes is obtained from wells, windmills furnishing the power for a portion of the supply, though in one district a portable gas engine is used, and has been found to be very economical. Beneficial results are obtained from the roads thus treated, and the system is being extended from year to year.

Roads follow the section lines generally, and in the rolling hills many steep grades could be obviated by abandoning the present location and relocating on easier grades. Many miles have been graded and graveled, and much improvement is noticed since the first visit of the members of the Bureau. This is notably in the cross-section of the roadbeds and drainage. In one supervisorial district many improvements, in the way of concrete and stone culverts, have been made this year at the suggestion of the Bureau of Highways.

There are not many expensive bridges in this county, but culverts and small bridges are numerous. In the swamp and overflowed portions some very long stretches of trestle must be maintained, as it is the only method of communication for the public.

The rainfall varies greatly according to locality; approximate annual precipitation being, Benicia, 15 inches; Vallejo, 15 inches; Suisun, 20 inches; Vacaville, 30 inches.

SONOMA COUNTY.

Organized: 1850.

Area: 1,540 square miles.

Visited: July 1, 1895, by Commissioners Manson, Irvine, and Maude; August 31, 1896, by Commissioner Irvine.

Mileage: 1,200.

Improved: No miles macadamized; 100 miles graveled; 12 miles sprinkled; 1,000 miles graded.

Title and Records: The Clerk of the Board of Supervisors reports that complete deeds to all the rights of way are recorded in the Recorder's office. Title is obtained by consent, condemnation, and purchase. Records are complete, showing all the roads, and the accounts are correctly kept by the Clerk of the Board of Supervisors.

Manner of Construction and Maintenance: By day's labor, under the personal supervision of the Road Commissioner.

Accounts: Kept in the several road districts, the supervisorial districts being subdivided.

Raising Money: By direct taxation on all outside property, and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	22	\$50,817 85
1894 -----	20	51,252 81
1893 -----	17	47,306 75
1892 -----	18	50,870 28
1891 -----	20	51,449 62
1890 -----	18	46,798 41
1889 -----	20	53,561 23
1888 -----	20	52,292 78
1887 -----	20	48,841 66
1886 -----	18	36,474 17
Total -----		\$489,665 56

Sonoma County joins Mendocino on the north, and extends as far south as San Pablo Bay. The eastern boundary is the crest of the main Coast Range, and rises to a height of 4,329 feet at Mount St. Helena. Low valley and bottom lands comprise the remainder of the area of this county, ranging from rolling to mountainous.

Road-building material abounds in almost every portion of the county. Basalt in unlimited quantities is found in the eastern part of the county, while trap and serpentine abound through the western portion.

Small streams are numerous in all parts of the county, from the beds of which gravel of a good quality is obtained. Russian River furnishes an unlimited supply of gravel, and some of the main lines of road are in close proximity to it. Many miles have been well graveled, but in many cases must be regaveled, as the roadbeds were not properly located. Not much attention has been paid to drainage or location. A portion of the mountains is of volcanic formation and subject to slides,

and, as a consequence, the maintenance of the roads is difficult and expensive.

Bridges are numerous, and some very expensive structures span the various streams, notably the one across Sulphur Creek near the Geysers. This bridge was constructed several years ago, at an approximate cost of \$7,000 or \$8,000, yet the road has never been built to or from it, and there it stands as a monument to some one's blunder.

The sprinkling of roads has not been so universal as it should have been, for water is abundant both from the numerous streams and from wells. However, the people realize the comforts and economy of the work done in this line, and the Board of Supervisors is gradually extending the system from year to year. The roads in the valley lands need the judicious application of water to make them as good as any in the State; yet, from lack of this practice, many miles are in a deplorable condition.

The mountain roads are similar to those of all mountain counties, being located on lines that offer the greatest resistance, and are most expensive to maintain.

STANISLAUS COUNTY

Organized: 1854.

Area: 1,486 square miles.

Visited: September 2, 1895, by Commissioners Manson and Irvine; July 15, 1896, by Commissioner Maude.

Mileage: 450.

Improved: No miles macadamized; about 12 miles graveled; no miles sprinkled; no miles properly graded.

Title and Records: Titles are defective in almost all instances. No records seem to have been kept by which the county could prove titles to rights of way, even by usage. The method of obtaining title seems, in most instances, to be a simple declaration that a road is a county highway. If there ever were records, they have either been lost or destroyed. There are but few to be found, and they are not so carefully preserved or indexed as to be available.

Manner of Construction and Maintenance: By day's labor.

Accounts: No accounts kept other than the ordinary voucher, which is rarely itemized so as to be intelligible.

Raising Money: By direct taxation only. No poll tax collected since 1893; records not obtainable of poll tax collected previous to 1889. Bonds issued in 1880, of which \$14,500 is now outstanding.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	20	\$31,282 43
1894	20	28,570 13
1893	20	30,750 54
1892	17	27,766 75
1891	20	31,205 05
1890	20	30,333 65
1889	12	19,534 77
1888	11	15,476 91
1887	11	14,813 37
1886	13	18,400 75
Total		\$248,134 35

The major portion of the county, containing the greater part of the population, is situated in the great valley of California, and is level; the smaller, unsettled, western portion is of a mountainous nature, rising to the crest of the Coast Range.

The county is traversed by a number of streams, most of which supply an abundance of gravel of a superior quality, all of which is available for road purposes. Granite is also found, but is not so good a material for road-metaling, and, on account of location, is not so available. Hardpan is available in most localities, as is also sand, both of which, judiciously used, will serve for road-surfacing.

Water for sprinkling can be obtained in almost every locality of the county, from natural waterways and from wells. The rainfall averages 16 inches a year, and is precipitated during the months of November, December, January, February, March, and April.

The valley portion of the county is subjected to great heat during the summer months, and as no natural timber exists, and no systematic effort at roadside tree-planting has been made, the roads are cut into dust in summer.

The general soil conditions are such that good dirt roads can be maintained.

To construct highways properly in this county it is essential to give the roads proper cross-section and surface the road with metal, which has been mentioned as available. Proper maintenance, other than the replacing of worn-out metal, can only be effected by sprinkling, and can be rendered more economical by a systematic effort at roadside tree-planting. The trees planted should be of a deciduous nature, in order that during the summer months the foliage may shield the road surface from the direct rays of the sun, while in the winter, there being no leaves, the sun has full play, and relieves the road of all excess moisture by evaporation.

The temporary character, improper location, and often excessive size of culverts, is another source of expense which should be remedied.

Although abundant road-metal and water exist, there has been no effort made at permanent construction.

It is the custom to cover the roads in the summer season with refuse straw, which is abundant. This is the most temporary makeshift. The cost of this strawing varies from \$30 to \$45 per mile, and in many instances must be repeated two or three times a season. Nor is this all. It frequently happens that a lighted match or cigar is dropped on a freshly strawed road, and the whole roadway vanishes in smoke. It is a well-authenticated fact that, on one occasion, on the day after a road had been strawed, a band of hungry cattle came along and actually ate the road up.

SUTTER COUNTY.

Organized: 1850.

Area: 611 square miles.

Visited: October 30, 1895, by Commissioners Irvine and Manson; October 3, 1896, by Commissioner Irvine.

Mileage: 330.

Improved: No miles macadamized; no miles graveled; 2 miles sprinkled; 150 miles graded.

Title and Records: To three fourths of the mileage, title is very imperfect. Of late, however, an endeavor has been made to get deeds. Title is obtained by purchase and grant. Records are in such condition that no reliable data could be obtained.

Manner of Construction and Maintenance: By day's labor of ten hours, under personal supervision of Road Commissioner.

Accounts: Are kept against the five road districts of the county.

Raising Money: By direct taxation and road poll tax. Road bonds amounting to \$11,000, to run twenty years, bearing 6%, were issued in 1883. No provision made for redemption.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	9	\$7,316 23
1894	8	7,876 63
1893	7	8,422 77
1892	1.25	1,939 00
1891	4	4,758 69
1890	4	4,715 43
1889	3.3	6,573 07
1888	3.5	4,575 84
1887	4	4,335 82
1886	3	4,053 97
Total		\$54,567 44

NOTE.—Additional levy is made for bridge purposes.

Sutter County is bounded on the north by Butte, on the east by Placer and Yuba, on the south by Sacramento, and on the west by Colusa and Yolo. This small and fertile county has the Sacramento River for its eastern boundary, and is the only one in the State which lies wholly in the great valley. With the exception of the Marysville

Buttes, which rise to the height of 1,800 feet, the whole area of the county is one great plain. About 200 square miles are tule and overflowed lands.

Road-building material is scarce, though some gravel is to be found in the beds of the rivers. Sand is abundant.

Water for sprinkling purposes can be developed throughout the whole county by wells and power for pumping.

The soil through a great portion of the county is of adobe formation, but some very good roads have been constructed by proper grading and drainage and surfacing with sand. They become badly cut during the autumn months, but by a judicious application of water during the summer months this could be obviated. In 1883 there were issued bonds to the extent of \$11,000 for road purposes, but no provision has been made for the redemption of same, though they mature in 1903.

The tax levy for road purposes is very small, but in addition thereto, a special levy for bridge purposes is made. Bridges are a source of great expense, and many structures have been rendered useless during the winter months owing to the fact that the extreme high water washes away the approaches thereto.

In the northern portion of the county the soil is of such a nature that the roads are naturally good and need only sprinkling to maintain them in good condition. Much of the road work in this county has been done by subscription of funds and labor, and the character of the roads so constructed is equal to any in the county. Section lines are followed in laying out the roads, thus increasing the mileage and cost of construction and maintenance.

The average rainfall is 19 inches, from October to April.

TEHAMA COUNTY.

Organized: 1856.

Area: 3,200 square miles.

Visited: November 4, 1895, by Commissioners Irvine and Manson; July 11, 1896, by Commissioner Irvine.

Mileage: 620.

Improved: 1 mile macadamized; 44½ miles graveled; none sprinkled; 283 miles graded.

Title and Records: Title is good to only about one third of the mileage, the remainder being used by sufferance. Title is obtained by purchase and grant, and, in many instances, by order of the Board of Supervisors. At present the records are in excellent condition, with a double index for name and number of all roads. Of late years all roads are mapped, but no bridges are marked on map.

Manner of Construction and Maintenance: By day's labor, under supervision of Road Commissioner.

Accounts: Are kept against five districts only, as the supervisorial districts are not subdivided. (See further remarks below.)

Raising Money: By direct tax, road poll tax, and donation. The books also show numerous transfers from other funds to road fund.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	28	\$21,453 90
1894 -----	22	19,953 04
1893 -----	23.4	27,328 50
1892 -----	17	21,416 64
1891 -----	17	31,950 25
1890 -----	15	23,317 29
1889 -----	16	26,741 33
1888 -----	11	24,103 01
1887 -----	11	19,605 93
1886 -----	23	22,860 20
Total -----		\$238,770 13

Tehama County lies on both sides of the Sacramento River, at the head of the Sacramento Valley, and is almost equally divided by that stream. It extends from the crest of the Coast Range on the west, at an elevation of about 8,000 feet, to the Lassen Buttes on the east, which are 10,437 feet above tidewater. About one sixth of the total area is valley and bottom land, the remainder being rolling and mountainous.

Gravel abounds in all streams on the west side of the Sacramento River, while trap is plentiful in the eastern portion of the county.

Water for sprinkling purposes is plentiful, both by pumping from wells and by gravitation, as the county is well supplied with mining and irrigation ditches and many natural streams.

The great lava plain of the northwest covers a portion of this county, and one of the most important roads traverses this plain for a distance of 12 miles. It was in connection with this road that the services of the Bureau were first called upon, and the advice given and suggestions made were followed, with gratifying results. The people of that section demonstrated that it does not take money alone to build roads, for they subscribed a thousand days' labor for themselves and teams, and, with a rock-crusher purchased by an interested party, they are building a first-class macadamized road at a minimum cost.

An excellent method has been adopted in this county, whereby all the roads have been named and numbered, and a double index for same has been made. Accounts are kept against the roads separately, showing the cost and character of the work done. This method is due to the efficiency of the County Surveyor, and the gratifying results obtained more than compensate for the small outlay.

Bridges are numerous and expensive, and there is invested in bridges at the present time \$202,060; the bridge over the Sacramento River at Red Bluff, consisting of five 150-foot spans, cost \$44,400.

We are pleased to note since the first visit of the Commissioners to this county that as fast as the wooden culverts need any repairs they are replaced with vitrified pipe.

A well-located road is in course of construction, from Red Bluff to the county line, which will reduce the grade more than 50%.

The average rainfall in the county is 30 inches per season, from October to April.

TRINITY COUNTY.

Organized: 1851.

Area: 3,276 square miles.

Visited: November 8, 1895, by Commissioner Manson; July 16, 1896, by Commissioner Irvine.

Mileage: 624—178 miles of road and 446 miles of trails.

Improved: No miles macadamized; no miles graveled; no miles sprinkled; 178 miles graded.

Title and Records: Title to the greater portion is defective. It is obtained principally by dedication to the public, when petitioned for by the people. Records are in such condition that no reliable data could be obtained.

Manner of Construction and Maintenance: Entirely by day's labor.

Accounts: Are very well kept in five funds and a general fund. All claims correctly itemized, showing where the work was performed and its character.

Raising Money: By tax on outside property and by road poll tax. \$14,000 bridge bonds to run twenty years, bearing 5%, were issued in 1889.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	15	\$4,393 93
1894	20	4,756 54
1893	20	4,364 15
1892	30	5,874 75
1891	33	6,365 44
1890	35	5,733 00
1889	10	16,949 36
1888	10	2,840 62
1887	10	3,149 96
1886	10	3,012 72
Total		\$57,440 47

Trinity County lies north of Tehama and Mendocino counties, the northern boundary being the crest of the New River, Salmon, and Scott mountains, reaching an elevation of 9,373 feet at Thompson Peak. The whole county is extremely mountainous and rolling, with a very small percentage of small valleys adapted to agriculture and grazing.

Road-building material of almost every description abounds in different portions of the county, but very little has been used. Water for sprinkling purposes could be had by gravitation, as the mountains are well supplied with streams, and mining ditches are to be met with in almost every section.

This county has more mileage of toll roads than of county roads; and the former are all well located on easy grades, while the county roads are very poorly located, and, owing to excessive rains, are impassable at

certain seasons of the year. The average rainfall is from 40 to 50 inches; snow lies on much of the surface for months at a time.

TULARE COUNTY.

Organized: 1852.

Area: 4,935 square miles.

Visited: February 15, 1896, by Commissioners Maude and Irvine; July 18, 1896, by Commissioner Manson.

Mileage: 2,185.

Improved: No miles macadamized; no miles graveled, except mileage in gravelly soil; no miles sprinkled; 1,737 miles graded.

Title and Records: Titles rest upon a better basis than in most counties, as the records are in better condition. Deeds are of record since 1883. Older roads rest upon survey notes and occupancy. Where changes have been made in location, title by occupancy must be proved. The records consist of (1) Four volumes of road minute books; (2) road register of usual form; (3) road plat book, on scale of 40 chains to one inch. In this, owing to irregularities in record, some roads are platted a mile or more from where they exist. (See T. 20 S., R. 19 E.)

Manner of Construction and Maintenance: Mostly by day's labor. Contract system in favor on small mountain roads.

Accounts: Fairly well kept, but not definite enough. Warrants sometimes indorsed in favor of and collected by Road Commissioner.

Raising Money: By property and poll tax. In 1878, sixty-two \$500 bonds issued; term, ten to twenty years; interest, 7%; sold at about 50 cents on the dollar; last installment of redemption and interest paid up in fiscal year ending June 30, 1896.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	30	\$43,070 01
1894	25	68,592 73
1893	35	70,520 52
1892	27	64,761 27
1891	27.4	49,979 84
1890	21	47,414 00
1889	20	42,521 01
1888	15	37,583 95
1887	25	31,718 43
1886	30	34,440 13
Total		\$490,601 89

Tulare County extends from the center of the great valley, near Tulare Lake, eastward to the crest of the Sierra Nevada at its culminating peaks about Mount Whitney. Differences in elevation, therefore, reach their maximum in this and Inyo, the next adjoining county east. The westerly third of the county lies within the valley of California, the remainder upon the west slopes of the Sierra, and is rugged and broken.

Kaweah, Kern, and Tule rivers drain the county; the headwaters of the two former are in the perpetual snow of the highest peaks of the Sierra, and the latter occupies a lower and more westerly basin.

The average rainfall is about 10 inches in the lower, and double to treble this amount in the more elevated portions. Summer rains are practically unknown in the lower, and common in the upper part of the county. Water is made available in the valley portion through extensive systems of irrigation works and artesian wells, and can be supplemented with surface and additional artesian wells.

Road-building materials are scarce, and resort will have to be made to mixtures of coarse sand and clay or adobe in proper proportions, and to hardpan, well disintegrated, wetted, and heavily rolled.

The districts own nine road-graders, three light road-rollers, and tools, but no official list of road-building machinery, with cost, age, and distribution, is kept.

The attention to and interest in road matters are greater than in many counties, and the results are manifest in many minor ways, but particularly in the details in accounts and records.

There are about 155 bridges in the county, most of which are of wood. In this, great saving can be accomplished by substituting concrete, brick, and salt-glazed sewer-pipe in small bridges, culverts, and drains.

TUOLUMNE COUNTY.

Organized: 1850.

Area: 2,232 square miles.

Visited: August 26, 1895, by Commissioners Manson and Irvine; June 19, 1896, by Commissioner Manson.

Mileage: 280.

Improved: No miles macadamized; 12 miles graveled; no miles sprinkled; 80 miles graded.

Title and Records: The title to most of the roads in Tuolumne County rests upon occupancy and usage. In suits against trespassers the defendant won on challenging the county's title to right of way, and showed that the county road really lay several hundred feet off the traveled road. The method of opening new roads is in accordance with the provisions of the Code. The road records consist of a volume entitled "Road Records of Tuolumne County," and which, if kept up, would show a great deal of information.

Manner of Construction and Maintenance: By day's labor, principally.

Accounts: The accounts are fairly well kept. District and general funds are kept separate, and warrants are legally and properly drawn in favor of individuals doing the work, attested by the Road Commissioner, and audited by the Board, but no exact record is kept of the location and extent of work.

Raising Money: By property and poll tax, and, in the early history of the county, by bond issue of \$50,000.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	35	\$10,377 25
1894	32	8,717 00
1893	32	8,623 65
1892	30	7,538 14
1891	30	7,328 34
1890	35	7,724 51
1889	30	6,369 44
1888	30	6,109 41
1887	35	5,866 99
1886	35	7,227 00
Total		\$75,881 73

Tuolumne County occupies the west slope of the Sierras from the base of the foothills to the crest, and lies between the North Fork of the Stanislaus and the divide between the Tuolumne and Merced rivers. The Stanislaus and Tuolumne drain the entire area, and flow through cañons of great depth and ruggedness. The lower edge of the county has a mean elevation of about 500 feet, and the higher peaks on the eastern boundary rise to 12,000 or more feet.

The mean rainfall in the lower portion is 15 inches, and in the upper, 45 inches. All the larger creeks and tributaries of the two rivers draining the county are perennial, and summer rains are common in the more elevated portions of the county. Water is therefore obtainable in nearly all localities.

Road-building materials are abundant and excellent, and consist of fair deposits of gravel in many of the creeks of the lower portion of the county, limestone well distributed through the central belt of the county, and hard volcanic and metamorphic rocks throughout the entire area, with a fair quality of hard quartz. With systematic work, nearly the entire mileage of roads could be metaled.

The roads, like those of most of the mountainous portions of the State, are not located upon true grade lines, and can only be improved by relocating, as has been done in a few notable instances in El Dorado, Tehama, and Riverside counties.

The use of stone for bridges has been commenced in Sonora, where an excellent stone bridge has replaced a costly and dangerous wooden one. This has, however, not been continued, but should be as soon as roads are permanently located upon the best grades and alignments which the topography will permit. The value of existing bridges is roughly estimated at \$5,700.

The roads are badly drained. Water-breaks (or break-backs) are, unfortunately, used in the place of side ditches and stone under-drains; hence, many miles of road are badly washed out each winter. Instead of thorough drainage, earth filling is shoveled in, to be again washed

out and replaced. This remark is true for thousands of miles of mountain and foothill roads, and is the cause of much expensive and useless outlay.

VENTURA COUNTY.

Organized: 1872.

Area: 1,850 square miles.

Visited: December 23, 1895, by Commissioners Maude and Irvine; August 3, 1896, by Commissioner Maude.

Mileage: No records to show it definitely. Probably, 700 or 800.

Improved: About 4 miles macadamized; 20 miles graveled; 22 miles sprinkled; 40 miles graded.

Title and Records: Title is very defective to all roads. In the case of new roads, more care is exercised, and titles are in better condition. In the case of the older roads, the title rested on usage and on ordinance of the Board of Supervisors. Of late years, the regulations prescribed by the Codes have generally been followed. Regular deeds are now required. All such records as exist are filed, but are not well indexed.

Manner of Construction and Maintenance: All new work of importance is done by contract. Day's labor for other work.

Accounts: Are kept in Auditor's office against road funds. Vouchers filed with County Clerk, but are not definitely segregated as to items of expenditure.

Raising Money: By direct taxation and road poll tax. During years 1889, 1890, and 1891, the sum of \$1,250 was subscribed for road-sprinkling purposes.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	40	\$27,240 38
1894	40	29,163 30
1893	40	31,698 98
1892	40	29,472 07
1891	40	27,824 81
1890	40	26,798 57
1889	40	30,383 28
1888	38	28,036 10
1887	38	21,543 71
1886	40	18,635 57
Total		\$270,796 77

Ventura County is topographically divided into two distinct districts. The portion skirting the coast is of a level nature, and several valleys run therefrom to the interior in an easterly direction and toward Los Angeles County. The remainder of the county is rugged and mountainous.

The rainfall averages 17 inches, from October to April.

Materials suitable for road-surfacing abound throughout the county. Gravel is found in several districts; limestone and shale are found in the Ojai Valley, the latter making an excellent top-dressing; deposits of bituminous rock and asphaltum are found in several localities; cobbles of various character occur in several of the streams, and have been utilized to a certain extent, forming an excellent macadam when

crushed. The county owns a rock-crushing plant, which has been intermittently used. The Bureau is in possession of some valuable detailed data in connection with the cost of the crushing, through the courtesy of the County Surveyor. We would recommend the continuance of its use.

The roads of this county should be sprinkled where practicable, and, owing to the soil conditions in the valley lands, a surfacing of the road with gravel, macadam, or other wearing surface is absolutely essential. In the mountainous portion of the county there are but few roads, but in these the matter of grading and location is of prime importance. Maintenance, other than the protection of these mountain roads from washing, is of small consideration.

The use of straw, which is prevalent on some of the sandy stretches of road in this county, should be discontinued, as it is an extremely expensive and temporary makeshift.

The encroachment of the railroad lines upon the county roads of this county should receive attention. Particularly is this the case on what is known as the coast road between Carpinteria and Ventura, where at one point the county roadway has been entirely taken for the roadbed of the railroad, and, as a consequence, the road has been forced over boulders and through deep sand, and even this can be traveled only during certain stages of the tide, as at high tide it is covered several feet deep with water.

YOLO COUNTY.

Organized: 1850.

Area: 1,017 square miles.

Visited: June 25, 1895, by Commissioners Manson, Maude, and Irvine; June 27, 1896, by Commissioner Irvine.

Mileage: 650.

Improved: No miles macadamized; 335 miles graveled; no miles sprinkled; 500 miles graded.

Title and Records: Title to the greater portion of the roads is defective, though of late years an effort has been made to get deeds to all the new roads. Methods of obtaining titles are by purchase, condemnation, and grant. Records are in good condition for the past few years, and all new roads are mapped and recorded, but only about 33% of total mileage is recorded. No index kept.

Manner of Construction and Maintenance: Maintenance by day's labor; most of construction is by contract, under supervision of County Surveyor.

Accounts: Are kept against five districts, as the supervisorial districts are not subdivided.

Raising Money: By direct tax on all outside property, and by road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895 -----	24	\$37,911 29
1894 -----	20	43,508 31
1893 -----	20	47,918 96
1892 -----	25	48,491 51
1891 -----	25½	48,339 46
1890 -----	35	44,116 31
1889 -----	20	38,099 11
1888 -----	24	41,314 95
1887 -----	23	41,180 00
1886 -----	25	41,108 58
Total -----		\$431,988 48

Yolo County lies on the west side of the Sacramento River, opposite the City of Sacramento, and extends westward into the rolling foothills of the Coast Range. Two thirds of its surface is valley land, the remainder being hilly. A large area is subject to inundation from the river, and is covered with tules, never having been reclaimed.

The beds of Cache and Putah creeks contain an inexhaustible supply of excellent gravel for road-building purposes, while the supply of other material is limited. Portions of the county have irrigation systems, and water can be had for sprinkling purposes at a minimum cost, either by pumping or by gravitation.

There are many miles of graveled roads throughout this county, but they require patching and repairing annually, as the traffic is exceedingly heavy during the summer and autumn. This could be obviated by judicious sprinkling, at less expense than is involved in repairs.

If more care were exercised in spreading the gravel, and a roller used, better results would follow.

The roads, as a rule, follow the section lines, thereby increasing the mileage and cost of maintenance.

A great deal of work on the roads, especially that of cuts, fills, and grading, is done by contract under the supervision of the County Surveyor, and most excellent results have been obtained. The report of the County Surveyor on a steel bridge constructed under his supervision shows a saving of 50%, an example worthy of emulation by other counties. Many extensive bridges have been erected. Owing to the sudden rising of streams, the maintenance of bridges is expensive.

The average rainfall in the lower valley portion of the county is about 16 inches, increasing to from 25 to 30 inches toward the western and more mountainous portion.

YUBA COUNTY.

Organized: 1850.

Area: 625 square miles.

Visited: October 30, 1895, by Commissioners Manson and Irvine; October 2, 1896, by Commissioner Irvine.

Mileage: 950.

Improved: No miles macadamized; 10 miles graveled; no miles sprinkled; 700 miles graded.

Title and Records: Title to about one eighth of the mileage is good; to the remainder, title is defective. Records are in fair condition, and all new roads are surveyed, mapped, and recorded.

Manner of Construction and Maintenance: By day's labor, under personal supervision of Road Commissioner.

Accounts: Are kept by districts, the supervisorial districts being subdivided.

Raising Money: By direct taxation and road poll tax.

Amount Expended in Past Ten Years.

Year.	Rate in Cents per \$100.	Amount.
1895	36	\$18,028 16
1894	25	16,100 29
1893	18	14,336 76
1892	25	17,296 38
1891	24	16,848 16
1890	39	22,644 11
1889	18.8	15,104 98
1888	20	15,561 67
1887	20	14,414 34
1886	25	15,522 42
Total		\$165,857 27

Yuba County is bounded on the north by Butte, on the south by Placer, on the east by Nevada and Sierra, and on the west by Sutter. About one sixth of its area is valley land, one fifth rolling, and the remainder, mountainous.

Road-building material cannot be said to be abundant, though there are some gravel, trap, and basalt in some portions of the county. In the mountains are waste "dumps" from the mines that could be utilized to good advantage.

Water for sprinkling purposes is available throughout the entire county. The numerous streams in the mountains and ditches in the rolling hills furnish an unlimited supply by gravitation, while in the valleys wells and power for pumping would furnish all that might be necessary.

A new impetus seems to have been instilled into the Board of Supervisors since the first visit of the Commissioners to this county, and the County Surveyor is now engaged in surveying and mapping all the roads in the county. When completed, Yuba will be able to boast of one of

the most complete road maps in this State, showing every road named and the distances between the points distinctly marked. All bridges and culverts will be numbered, so that if any repairs are necessary there will be no difficulty in ascertaining where the work is to be done and the kind and sizes of timber needed.

The mountain grades, like the majority of such, are not located on the easiest lines, but have, in many instances, been constructed so as to accommodate some interested individual, irrespective of the cost of maintenance or the welfare of the traveling public. No particular attention has been paid to the draining of these grades, and the soil on some of them, being extremely loose, washes badly during the rainy season. The roads through the rolling hills are naturally good if properly graded and drained. In the valley there are many miles of good road that have been graded, and a few graveled, all of which are in fair condition.

The City of Marysville is macadamizing some of the streets with rock from the State plant at Folsom, and contemplates further improvement in this direction.

The average rainfall in the valley is between 18 and 20 inches.

APPENDIX B.

PROPOSED AMENDMENTS TO EXISTING HIGHWAY LAWS.

The Bureau recommends the following changes in existing sections of the Political Code:

SECTION 2618. To be amended to read as follows:

Sec. 2618. In all counties of this State, public highways are roads, streets, alleys, lanes, courts, places, trails, and bridges, laid out or erected as such by the public, or if laid out and erected by others, dedicated or abandoned to the public, or made such in actions for the partition of real property; *provided*, that no route of travel used by one or more persons, over the lands of another, shall hereafter become a public road or byway by use, unless so declared by the Board of Supervisors, or by dedication by the owner of the land affected.

SECTION 2621. To be repealed.

SECTION 2623. To be amended to read as follows:

Sec. 2623. Any road laid out by the Board of Supervisors, as provided in this chapter, or used and worked as therein provided, shall not be vacated or cease to be a highway until so ordered by said Board, and each county shall be deemed to have acquired title to any road opened over any land in conformity to any order made by its Board of Supervisors, pursuant to this chapter, after one year shall have elapsed from the time of making the order opening the road; *provided*, no contest shall have previously been entered.

SECTION 2633. To be amended to read as follows:

Sec. 2633. Any owner or occupant of land adjoining a highway not less than three rods wide may plant deciduous trees in and along said highway on the side contiguous to his land. They must be set in regular rows at a distance of at least twenty feet from each other, and not more than six feet from the boundary of the highway. If the highway is more than eighty feet wide, the row must not be less than six, nor more than twelve, feet from the boundary of the highway. Whoever willfully injures any of them is liable to the owner or to the occupant

for the damage which is thereby sustained; *provided*, if, in the judgment of the Board of Supervisors, the whole width of such road is needed for use for highway purposes, the whole thereof may be so used.

SECTION 2643. To be amended to read as follows:

Sec. 2643. The Board of Supervisors of the several counties of the State shall have general supervision over the roads within their respective counties. They must by proper order:

1. Cause to be surveyed, viewed, laid out, recorded, opened, and worked, such highways as are necessary to public convenience, as in this chapter provided;

2. Cause to be recorded as highways all highways which have become such by usage, dedication, or abandonment to the public, or by any other means provided by law, and to prepare and record proper deeds and titles thereto;

3. Abolish or abandon such as are not necessary;

4. Acquire the right of way over private property for the use of public highways, and for that purpose require the District Attorney to institute proceedings under title seven, part three, of the Code of Civil Procedure, and to pay therefor from the general road fund, or the district road fund of the county;

5. Levy a property tax for road purposes;

6. Cause to be erected and maintained, at the intersections and crossings of highways, guide-posts, properly inscribed;

7. Cause the road tax collected each year to be apportioned to the several road districts entitled thereto, and kept by the Treasurer in separate funds;

8. Audit all claims on the funds set apart for highway purposes, and specify the fund, or funds, from which the whole, or any part, of any claim, or claims, must be paid;

9. In their discretion, they may provide for the establishment of gates on the public highways in certain cases, to avoid the necessity of building road fences, and prescribe rules and regulations for closing the same, and penalties for violating said rules; *provided*, that the expense for the erection and maintenance of such gates shall in all cases be borne by the party, or parties, for whose immediate benefit the same shall be ordered;

10. For the purpose of watering roads in any part of the county, the Board of Supervisors may erect and maintain waterworks, and for such purpose may purchase or lease real or personal property. The costs for such waterworks and the watering of said roads may be charged to the general county fund, the general road fund, or the district fund of the district, or districts, benefited;

11. Whenever it shall be determined that any grading, graveling,

macadamizing, ditching, sprinkling, or other work upon highways is necessary, and is to be done, and where the estimated cost of such work amounts to three hundred dollars, the Board of Supervisors must, by proper order, direct the County Surveyor to make definite surveys of the proposed work, and to prepare profiles and cross-sections thereof, and to submit the same, with the estimate of the amount, or amounts, of work to be done, and the cost thereof, and with specifications therefor. Said report shall be prepared in duplicate, one copy to be filed in the Surveyor's office, and the other to be filed with the clerk of the Board of Supervisors. The Board, upon receipt of such report, must advertise for bids for the performance of the work specified. Such advertisement for bids must be published for two weeks in two newspapers, one published at the county seat, and the other at a point nearest the proposed work. Such advertisement must be in the following form:

"Office of the Clerk of the Board of Supervisors,
 _____ County, _____, 189—.

"Sealed bids will be received by the Clerk of the Board of Supervisors of _____ County, at his office, until _____ o'clock —. M., _____, 189—, for _____ on _____, in _____ District, in _____ County.

"Specifications for this work are on file in the office of the Clerk of said board, to which bidders are hereby referred.

" _____,

"Clerk of the Board of Supervisors of the County of _____."

And such advertisement must also be posted, for at least two weeks prior to the opening of the bids for the proposed work, in three conspicuous places in the district or districts in which the proposed work lies, and one at the site of the proposed work. Bids must be inclosed in a sealed envelope, addressed to the clerk of the Board of Supervisors, and must be indorsed, "Bids for _____," and must be delivered to said clerk prior to the hour specified in the advertisement. The board shall publicly open and read such bids as may be submitted, and must award the contract for the work to the lowest bidder; unless it shall appear to the board that the bids are too high, and the work can be done more cheaply by day labor, in which case the bids must be rejected, and the work ordered done by the road commissioner or commissioners in whose district or districts the work may be situated. In case the work shall be let to contract, monthly or quarterly payments may be made thereon, upon the receipt of a certified estimate by the County Surveyor of the amount of work done during the preceding month or quarter, to the extent of seventy-five per cent of the value of said work, the remaining twenty-five per cent being due on the completion of the work. The services of the surveyor in making such partial

estimates must be paid for by the contractor. Upon the completion of the work the County Surveyor must examine the same, and, if completed in accordance with the specifications therefor, he must submit to the Board of Supervisors a certificate, over his signature and official seal, to the effect that such work by the contractor therefor has been completed in accordance with the specifications therefor, and recommending its acceptance. The board shall thereupon audit the same, and direct its payment out of the proper fund or funds.

SECTION 2645. To be amended to read as follows:

Sec. 2645. Road commissioners, under the direction and supervision and pursuant to orders of the Board of Supervisors, must:

1. Take charge of the highways within their respective districts, and shall employ all men, teams, watering-carts, and all help necessary to do the work in their respective districts when the same is not let by contract; *provided*, that no road commissioner shall be interested directly or indirectly in any contract work done, or material supplied, upon the highways in the county of which he is an officer;

2. Keep them clear from obstructions, and in good repair, and destroy, or cause to be destroyed, at least once a year, all thistles, Mexican cockle-burs, of any kind, and all noxious weeds, growing or being on any portion of the public highways or public roads in their respective districts;

3. Cause banks to be graded, bridges and causeways to be made when necessary, keep the same in good repair, and renew them when destroyed.

SECTION 2652. To be amended to read as follows:

Sec. 2652. The Board of Supervisors may, annually, at any regular meeting held between the first days of January and March of each year, levy on each male person over twenty-one and under fifty-five years of age found in each road district during the time for the collection of road poll taxes for that year, excepting all persons who were honorably discharged from service in the army or navy of the United States at any time within the first day of April in the year of our Lord eighteen hundred and sixty-one, and the first day of September in the year of our Lord eighteen hundred and sixty-five, an annual road poll tax not exceeding three dollars; and from every such person not above excepted, in a road district who has not paid the same in some other district, must be collected the amount of road poll tax so levied. Said road poll tax shall be collected by the County Assessor in the same manner that State poll taxes are collected, and all remedies given by law for the collection of State poll taxes shall apply to and be in force for the collection of road poll taxes. Road poll tax receipts, in blank, signed and numbered in the same manner that other poll tax receipts are signed and numbered, shall be delivered by the Auditor of the county to said County

Assessor on or before the first Monday of March of each year; and said Assessor shall be charged with the amount of such road poll tax receipts delivered to him, and be credited with those returned, and shall settle with the Auditor, and pay over the amounts collected, in the manner provided by section thirty-eight hundred and fifty-three of this Code. Such road poll tax so collected shall be applied to and constitute a part of the district road fund of the district from which it was collected.

SECTION 2654. To be amended to read as follows:

Sec. 2654. The annual property tax for road purposes must be levied by the Board of Supervisors, at their session when the tax is by them levied for county purposes. This property road tax, when levied, must be annually assessed and collected by the same officers and in the same manner as other State and county taxes are levied, assessed, and collected, and turned over to the County Treasurer.

SECTION 2671. To be amended to read as follows:

Sec. 2671. Corporations, or other employers of persons, in any road district subject to the road tax, are chargeable for the road poll tax assessed against their employes to the extent of any credit in their hands not exceeding such tax; *provided*, the Assessor shall first give notice to such employer, or the managing agent of such corporation, and from the time of such notice the amount of any credit in his hands, or that shall thereafter accrue, sufficient to satisfy said tax, shall be paid to the Assessor, whose receipt shall be evidence in bar of the prosecution of any action by the employé against the principal for the recovery of the same.

SECTION 2681. To be amended to read as follows:

Sec. 2681. Any ten or more resident freeholders of a section which may be benefited by the construction of a new road, the correction, or alteration, or discontinuance and abandonment of an existing road, may petition the Board or Boards of Supervisors of the county or counties in which the proposed or existing road, in whole or in part, lies, in the form herein provided. In case the petition relate to a section situated in more than one county, copies of the petition must be presented to the Board of Supervisors of each county.

SECTION 2682. To be amended to read as follows:

Sec. 2682. The petition must set forth the terminal points of the road which it is proposed to construct, alter, or abandon, the general route, and the names of the owners of lands affected by the action of the petition, if known, and if not known, that fact must be stated.

SECTION 2683. To be amended to read as follows:

Sec. 2683. The petition must be accompanied by a good and sufficient bond, to be approved by the Board of Supervisors, in double the amount of the probable cost of surveying, viewing, and estimating the exact nature and cost of the matter petitioned for, and conditioned that in case the petition be not granted the bondsmen will pay all costs of surveying, viewing, and estimating the nature of the matters petitioned for, and further providing that in no case shall any costs incurred become a charge against the county, or payable out of any county funds.

SECTION 2684. To be amended to read as follows:

Sec. 2684. Upon filing such petition and bond, the Board of Supervisors must appoint three viewers, one of whom must be the County Surveyor, one the County Assessor, and the third a disinterested freeholder of the county, not resident in the district affected, to view and survey any proposed alteration of an old, or opening of a new road, and submit to the board an estimate of the change, alteration, or opening, together with the probable cost thereof, including the purchase of the right of way, and their views of the necessity thereof.

SECTION 2685. To be amended to read as follows:

Sec. 2685. The road viewers must be sworn to discharge their duties faithfully, must view and lay out the proposed alterations or new road over the lightest grades and most direct alignments which the nature and topography of the country will permit; they must notify the resident owners, or agent of the owners, of the lands affected by the matter petitioned for. A majority number of the viewers, providing one shall be the County Surveyor, shall be competent to act in all matters pertaining to their duties mentioned in this chapter. The Board of Supervisors, in making the order appointing viewers, may, in their discretion, direct said viewers to first view the proposed road, and if, in the opinion of the viewers, the road be impracticable or unnecessary, the said viewers shall discontinue further proceedings in the matter, and report accordingly.

SECTION 2686. When the view and survey of the proposed alteration or new road is completed, the viewers must report to the Board of Supervisors:

1. The course, termini, length, and probable cost of construction of the proposed road;
2. The estimate of damage to the owner of any land over which it is proposed to run the road;
3. The names of land-owners who consent to give the right of way, and their written consent thereto;

4. The names of land-owners who do not consent, and the amount of damage claimed by each; *provided*, that when there are non-resident land-owners, and no agent upon the land upon whom notice can be served, such non-resident land-owners shall be considered as non-consenting land-owners, unless their written consent shall have been obtained;

5. Such other facts bearing upon the subject, of importance to be known by the Board of Supervisors.

SECTION 2687. To be amended to read as follows:

Sec. 2687. The viewers must be paid as follows: The Surveyor and Assessor must be paid their actual expenses whilst in the discharge of their duty, and if the services of assistants, chainmen, and laborers be necessary, the Surveyor must present a sworn bill of the cost of their services and actual expenses, which must be paid as herein provided. The third member of the board of viewers shall be paid three dollars per day for the time occupied in the discharge of his duties. These payments, in case the petition be not granted, must be paid by the signers of the bond accompanying the petition, and shall in no way become due or be paid from highway funds. In case the petition be favorably acted upon, these expenses must be paid from such highway fund or funds as the Board of Supervisors shall direct.

SECTION 2691. To be amended to read as follows:

Sec. 2691. All awards by agreement, determined by the board or the proper court, must be paid out of the road fund of the district, except that which may be paid by interested parties, on the order of the Board of Supervisors, and except also that whenever it appears to the Board of Supervisors that any road district would be unreasonably burdened by the payment of such awards and expenses, the Board of Supervisors, by a two-thirds vote, may cause a portion of such awards and expenses to be paid from the general road fund; *provided, however*, that not to exceed ten per cent of the general road fund shall be devoted to such purposes in any one fiscal year. If the road lies in more than one district, the Board of Supervisors must proportionately divide the awards and other costs between said districts; *provided, however*, that when money is paid out by any interested person the same may be given to the credit of either fund, at the discretion of the board.

SECTION 2692. To be amended to read as follows:

Sec. 2692. Private or by-roads may be opened, laid out, or altered for the convenience of one or more residents or freeholders of any road district, in the same manner as public roads are opened, laid out, or altered, except that only one petitioner shall be necessary, who must be either a resident or freeholder in said road district; and the Board of

Supervisors may, for like cause, order the same to be viewed, opened, laid out, or altered, the person for whose benefit said road is required paying the damages awarded to land-owners, and keeping the same in repair; *provided*, that the petitioners must accompany the petition with a bond mentioned in section twenty-six hundred and eighty-three, conditioned as provided in said section, and with a further condition that the bondsmen will pay to the person over whose land said road is sought to be opened his necessary costs and disbursements in contesting the opening of such road, in case the petition be not granted and the road finally not opened.

SECTION 2695. To be amended to read as follows:

Sec. 2695. When the alteration of an old or the opening of a new road makes it necessary to remove fences on land given, purchased, or condemned by order of a court for road or highway purposes, written notice to remove the fences must be given by the road commissioner to the owner, his occupant, or agent, or by posting the same on the fence; and if the same is not done within ten days thereafter, or commenced and prosecuted with due diligence, the road commissioner may cause it to be carefully removed, at the expense of the owner, and recover of him the cost of such removal, and the fence material may be sold to satisfy the judgment.

SECTION 2696. To be amended to read as follows:

Sec. 2696. Whenever it shall become necessary to acquire land in order to raise the banks along any stream, or remove obstructions therefrom, or widen, deepen, or straighten their channels, for the purpose of protecting any public road or highway, the Board of Supervisors must, by order, direct proceedings to procure the land necessary for such purpose, to be instituted by the District Attorney of the county, in the name of the county, under and as provided in title seven, part three, of the Code of Civil Procedure, unless the right of way can be acquired by gift or purchase.

SECTION 2715. To be amended to read as follows:

Sec. 2715. If the road commissioner of any road district, chargeable with the repair of a bridge, fails to make the needed repairs, after being informed that a bridge is impassable or unsafe, and is requested to make the same by two or more freeholders of the district in which it is situated, or the two districts which it unites, the freeholders may represent the fact to the Board of Supervisors, who, upon being satisfied that the bridge is unsafe, must cause the same to be repaired.

SECTION 2716. To be amended to read as follows:

Sec. 2716. The Board of Supervisors of each county must hold special

meetings on the third Monday in July and the third Monday in January, for the consideration of highway matters and interests. At these meetings each Supervisor, as ex officio road commissioner, must submit in writing a report upon the expenditures made and work performed in his district during the previous six months. Such report must show:

1. The mileage of permanently located and improved roadway, by what method and from what material constructed;

2. The number, location, and character of permanent bridges, culverts, and drains constructed;

3. The character and extent of water supply developed for road-sprinkling, and the mileage of sprinkled road, with the total and per mile cost;

4. The character, condition, and number of all types of road machinery and tools owned by the county or district, and used in his district;

5. Recommendations as to the road management of his district for the ensuing six months, and the scope of work contemplated;

6. Retiring commissioners shall make their reports to and through their successors. A certified copy of each report must, within ten days, be forwarded by the clerk of the board to the State Bureau of Highways.

SECTION 2731. To be amended to read as follows:

Sec. 2731. If any highway duly laid out or erected is encroached upon, by fences, buildings, or otherwise, the road commissioner of the district must, in writing, require the encroachment to be removed from the highway.

SECTION 2734. To be amended to read as follows:

Sec. 2734. If the encroachment be denied, and the owner, occupant, or person controlling the matter or thing charged with being an encroachment, refuses either to remove or permit the removal thereof, the Board of Supervisors must direct the District Attorney to institute an action to abate the same as a nuisance; and if he recovers judgment, he may, in addition to having the same abated, recover ten dollars for every day such nuisance remained after notice, and also his costs in said action.

SECTION 2735. To be amended to read as follows:

Sec. 2735. If the encroachment is not denied, but is not removed for five days after the notice is complete, the road commissioner must remove the same at the expense of the owner, occupant, or person controlling the same, and recover his costs and expenses, together with the penalty provided for in the preceding section.

SECTION 2737. To be amended to read as follows:

Sec. 2737. Whoever obstructs or injures any highway, or diverts any watercourse thereon, or drains water from his land upon any highway,

to the injury thereof, by means of ditches or dams, is liable to a penalty of ten dollars for each day such obstruction or injury remains, and must be punished as provided in section five hundred and eighty-eight of the Penal Code. Any person, persons, or corporation, who shall be storing or distributing water for any purpose, and shall permit the water to overflow, or saturate by seepage, any highway, to the injury thereof, shall, upon notification of the road commissioner of the district where such overflow or seepage occurs, repair the damages occasioned by such overflow or seepage; and should such repair not be made within ten days by such person, persons, or corporation, said road commissioner shall make such repairs and recover the expense thereof from such person, persons, or corporation, in an action at law. All persons excavating irrigation, mining, or drainage ditches across public highways are required to permanently bridge said ditches at such crossings, and upon neglect to do so, the road commissioner for that road district shall construct the same and recover the cost of constructing, of such persons, by action, as provided in this section. And whoever willfully injures any public bridge is hereby declared to be guilty of a misdemeanor, and is also liable for actual damages for such injury, to be recovered by the county in a civil action; *provided*, that every person who knowingly allows the carcass of any dead animal (which animal belongs to him at the time of its death) to be put or to remain within one hundred feet of any street, alley, public highway, or road in common use, and every person who puts the carcass of any dead animal within one hundred feet of any street, alley, highway, or road in common use, or who shall deposit on any highway any refuse or waste, is guilty of a misdemeanor.

EXPENDITURES OF BUREAU

UP TO AND INCLUDING NOVEMBER 1, 1896.

SALARIES.

Commissioners' salaries from April 11, 1895—three Commissioners, at \$250 per month each	\$14,000 00
Clerk's salary from June 1, 1895, at \$100 per month	1,700 00
Stenographer's salary from June 1, 1895, at \$90 per month	1,530 00
Janitor's salaries from July 1, 1895	450 00
Draughtsman's salary from May 15, 1896	412 50

\$18,092 50

TRAVELING EXPENSES.

R. C. IRVINE—

1895—July 26	\$103 50
Aug. 6	38 90
Oct. 12	60 00
Nov. 5	17 00
Nov. 20	64 45
1896—Jan. 15	81 00
Jan. 18	115 05
Mar. 23	99 40
May 4	23 65
May 25	29 65
July 23	34 20
Aug. 29	135 65
Sept. 8	165 90
Oct. 28	97 55
	<u>\$1,065 90</u>

MARSDEN MANSON—

1895—July 26	\$49 05
Aug. 6	73 10
Aug. 6	102 10
Oct. 12	75 70
Nov. 5	17 45
Nov. 20	59 75
1896—Jan. 15	123 50
Mar. 23	222 30
June 16	58 05
Aug. 31	72 95
Sept. 26	339 75
Oct. 28	36 15
	<u>1,229 85</u>

J. L. MAUDE—

1895—July 1	\$150 60
Aug. 6	6 35
Oct. 12	54 95

Amounts carried forward	\$211 90	\$2,295 75
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Amounts brought forward	\$211 90	\$2,295 75
J. L. MAUDE—Continued.		
1896—Jan. 8.....	193 90	
Feb. 7.....	174 40	
Mar. 11.....	155 70	
Apr. 16.....	21 05	
July 3.....	57 00	
Aug. 6.....	206 90	
		1,020 85
E. MYRON WOLF—		
1895—Sept. 25.....	\$20 35	
1896—Mar. 11.....	28 05	
June 12.....	15 35	
Aug. 29.....	3 65	
Sept. 8.....	26 85	
		94 25
J. H. WATKINS—		
1895—Sept. 1.....	\$18 65	
		18 65

\$3,429 50

MISCELLANEOUS.

1895—July 26—B. R. Crocker	\$175 00	
D. McKay	28 50	
Sayre & Son	53 20	
D. Ahern	8 00	
Oscar Foss	98 00	
H. S. Crocker & Co.....	22 68	
Western Union Telegraph Co.....	5 25	
R. Philip	5 00	
Hevener, Mier & Co.....	5 75	
F. S. Smith	8 25	
Aug. 6—H. C. Chipman	7 00	
F. H. Wing	10 00	
E. J. Croly	35 00	
S. W. Butler	1 40	
Oct. 12—A. Leitz Co.	43 75	
Sayre & Son	7 60	
H. S. Crocker & Co.....	28 77	
Western Union Telegraph Co.....	6 05	
Tom Scott	31 70	
D. Falconer	36 23	
Holbrook, Merrill & Stetson.....	4 00	
Bancroft-Whitney Co.....	4 80	
Fashion Stables	3 00	
E. J. Croly	38 00	
D. Weiman.....	75	
Carfare for porter	1 25	
Postage stamps	5 00	
Nov. 5—Weinstock, Lubin & Co.....	5 95	
H. S. Crocker & Co.....	2 75	
Western Union Telegraph Co.....	2 96	
Willis & Clements.....	10 30	
G. G. Wickson & Co.....	140 00	
J. F. Hill	165 00	
E. J. Croly	20 00	
F. M. Jones	2 50	
Postage stamps.....	5 00	
Carfare for porter.....	1 00	
Amount carried forward		\$1,029 39

Amount brought forward		\$1,029 39
1895—Nov. 5—	Oscar Foss	23 50
	Wells, Fargo & Co.	25
Nov. 20—	H. S. Crocker & Co.	9 55
	Wells, Fargo & Co.	1 05
	C. W. Goddard	4 00
	J. W. Wilson & Son	12 00
	Western Union Telegraph Co.	4 55
	Schad Bros.	37 40
	H. C. Chipman	11 00
	W. F. Cutler	12 35
Dec. 9—	H. K. Wallace	50
	Weinstock, Lubin & Co.	2 10
	Postage stamps	1 00
	L. D. Stone & Co.	10 00
	G. G. Wickson	2 90
	Press Clipping Bureau	8 00
	Press Clipping Bureau	6 00
	Press Clipping Bureau	3 00
1896—Jan. 15—	A. K. Varney	6 00
	H. S. Crocker & Co.	75
	Western Union Telegraph Co.	49
	Sayre & Son	4 25
	D. McKay	3 00
	Schad Bros.	21 35
	Postage stamps	2 00
	Wells, Fargo & Co.	50
	Postage stamps	1 00
	Union Ice Co.	14 90
	Press Clipping Bureau	6 00
	Weinstock, Lubin & Co.	1 50
	Postage stamps	1 00
Feb. 18—	John Breuner	368 55
	Southern Pacific Co.	2 20
	Oscar Foss	15 40
	Sunset Telephone Co.	25
	Oscar Foss	28 00
	Postage stamps	2 00
	Postage stamps	2 00
	Western Union Telegraph Co.	1 25
	Wells, Fargo & Co.	90
	M. M. Davis	5 00
Mar. 23—	A. Leitz Co.	5 50
	Sunset Telephone Co.	1 10
	Press Clipping Bureau	3 00
	Weinstock, Lubin & Co.	2 50
	Postage stamps	5 00
	Mason Towel Supply Co.	5 50
	Western Union Telegraph Co.	1 90
	D. Ahern	4 50
	Postage stamps	20 00
	Wells, Fargo & Co.	85
April 21—	Schad Bros.	49 30
	Press Clipping Bureau	6 00
	H. S. Crocker & Co.	45
	Sunset Telephone Co.	75
	Weinstock, Lubin & Co.	2 95
Amount carried forward		\$1,776 13

	Amount brought forward	\$1,776 13
1896—April 21—	C. B. Murphy	5 00
	L. Santini	75 00
	Southern Pacific Co.	1 25
	G. H. Wheeler	1 00
	Bassett & Minford	25 50
	E. Myron Wolf	20
May 4—	Antonio Iaacheri	14 00
	Bassett & Minford	2 50
	C. J. Peters	2 75
	W. P. Fuller & Co.	8 50
	Holbrook, Merrill & Stetson	1 55
	F. H. Wing	1 25
	E. Myron Wolf	1 50
25—	Baker & Hamilton	4 00
	Western Union Telegraph Co.	1 26
	J. H. Watkins	30
June 2—	G. W. Rogers	8 00
16—	Postage stamps	7 00
30—	C. Suter	6 25
	Tom Scott	7 20
	F. W. Wright & Co.	2 50
	Baker & Hamilton	1 10
	Wells, Fargo & Co.	1 20
	Office Specialty Manufacturing Co.	25 95
	Press Clipping Bureau	6 00
	Postal cards	1 00
	Postage stamps	20 00
	Schaw-Ingram-Batcher Co.	4 00
July 23—	Press Clipping Bureau	3 00
	Sacramento Transportation Co.	6 05
	Bassett & Minford	1 00
	Wells, Fargo & Co.	50
	Tom Scott	1 50
	Fashion Stables	13 65
	D. Flint	12 80
	Sayre & Son	2 85
	Capitol Electric Works	5 85
	C. W. Goddard	4 00
	J. F. Toomey	100 00
	Sayre & Son	34 80
Aug. 29—	H. S. Crocker & Co.	4 20
	Wm. McLaughlin	2 50
	Hevener, Mier & Co.	4 50
	Sunset Telephone Co.	1 75
	D. McKay	13 50
	A. Holmes	10 35
	M. P. Henderson & Son	2 00
	Postage stamps	20 00
	Western Union Telegraph Co.	5 70
	C. H. Rave	6 00
	L. S. Griswold	45
	Fashion Stables	57 50
	Fashion Stables	30 00
	G. F. Gillenwater	3 00
Sept. 25—	Schad Bros.	37 00
	Sayre & Son	3 00
	J. T. Stoll	1 50
	Amount carried forward	\$2,400 84
9—	BH	

Amount brought forward	\$2,400 84
1896—Sept. 25—J. H. Watkins	95
Oct. 23—Press Clipping Bureau	9 00
Sacramento Transportation Co.	7 65
H. W. Rivett	2 50
Western Union Telegraph Co.	1 86
Western Union Telegraph Co.	1 65
Bolton & Strong	8 65
Wells, Fargo & Co.	80
Wells, Fargo & Co.	2 62
Sullivan-Kelly Co.	5 45
Goodyear Rubber Co.	2 50
C. W. Goddard	2 00
C. W. Goddard	4 00
Sunset Telephone Co.	1 95
H. S. Crocker & Co.	1 30
	<u>\$2,453 72</u>

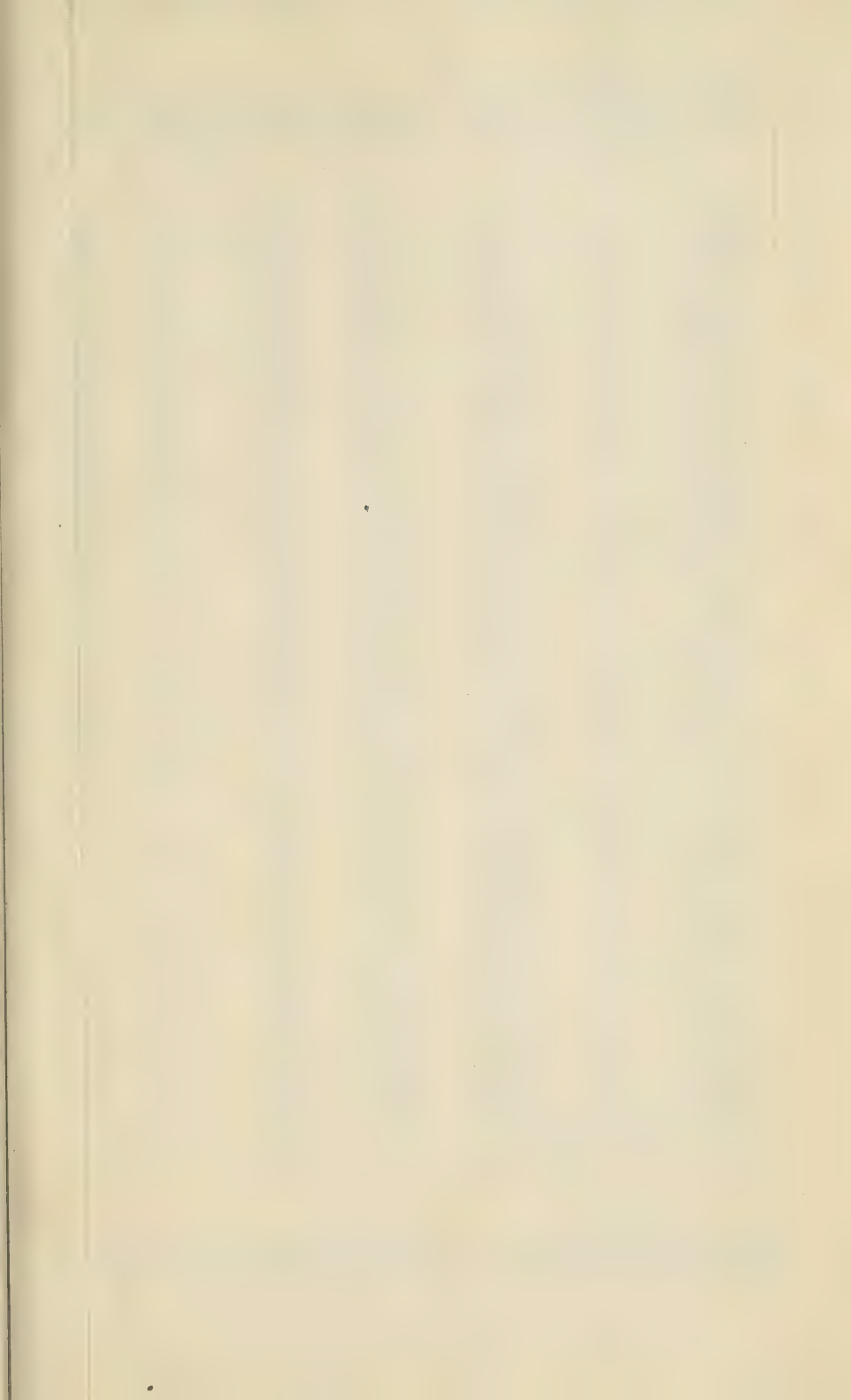
RECAPITULATION.

Salaries	\$18,092 50
Traveling expenses	3,429 50
Miscellaneous	2,453 72
Total	<u>\$23,975 72</u>
Appropriation for Bureau	\$31,000 00
Total expenditures up to November 1, 1896	<u>23,975 72</u>
Balance	\$7,024 28

Making due allowances for such expenditures as must be made before the expiration of the term of existence of the Bureau, there will remain a surplus to be returned to the State.

The dates of expenditures given indicate the dates of payments.

The Bureau has a special form of voucher, in original and duplicate, on which all bills contracted by the Bureau are made out. The originals are transmitted to the Board of Examiners, and by them filed with the State Controller. The duplicates, receipted, are all numbered and filed in the office of the Bureau.



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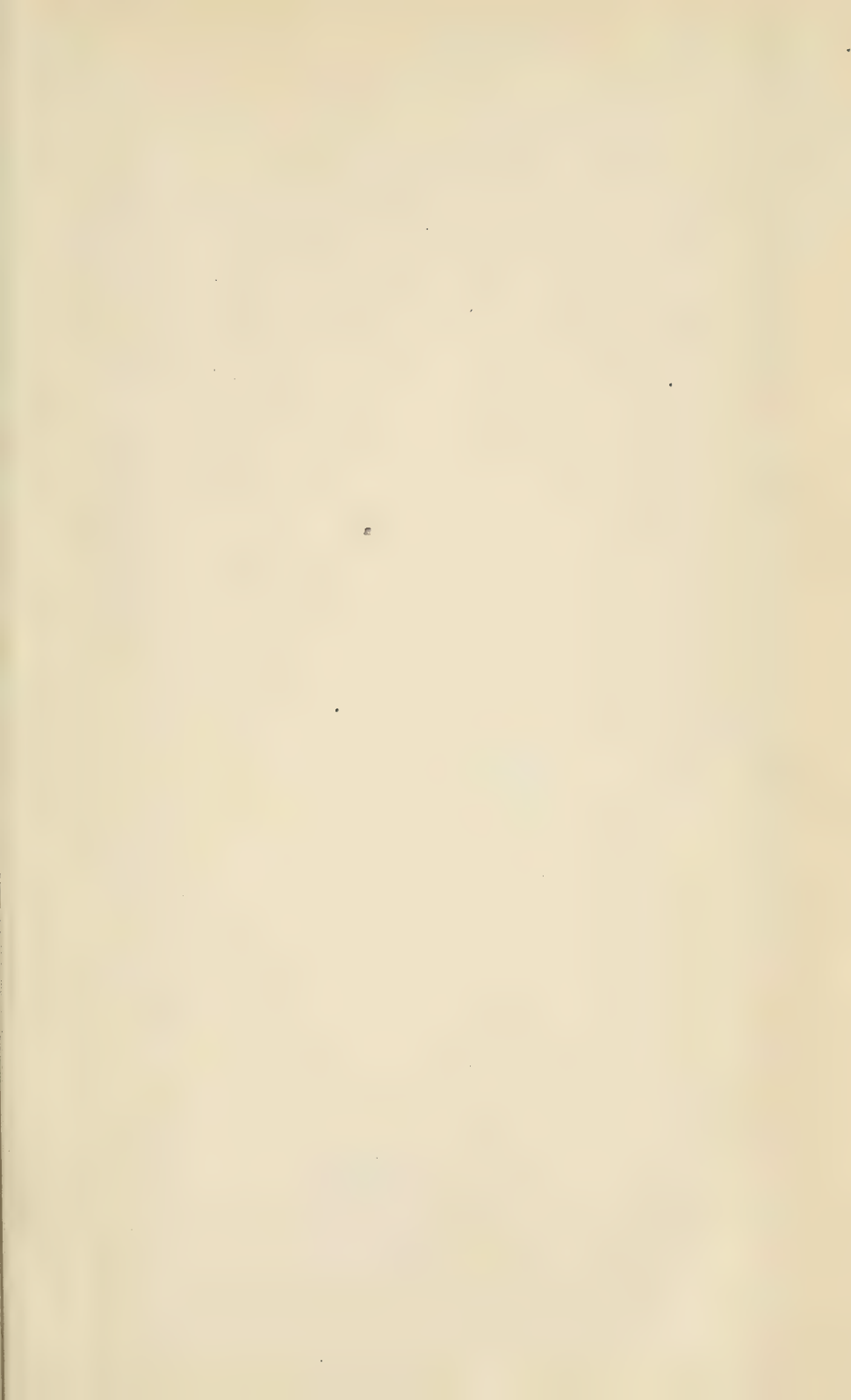
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